Practice Assessment

Practice provides practice and allows you to self-reflect on your conceptual understanding of the *Lesson* skills. Your 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 6.3: Reciprocal Functions

Complete the *Practice* below. When you have completed all the questions for *Lesson 6.3 Practice – V* 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 – V

1. A pizza is divided equally among p people.

   a. Write a reciprocal function, $A(p)$, that represents the amount of the pizza each person receives.

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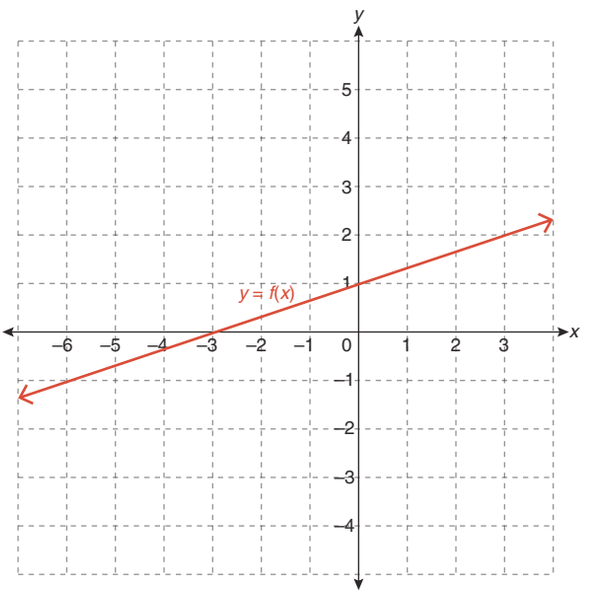
   b. Describe how the amount of pizza and the number of people are related. Is this relationship typical for reciprocal functions?

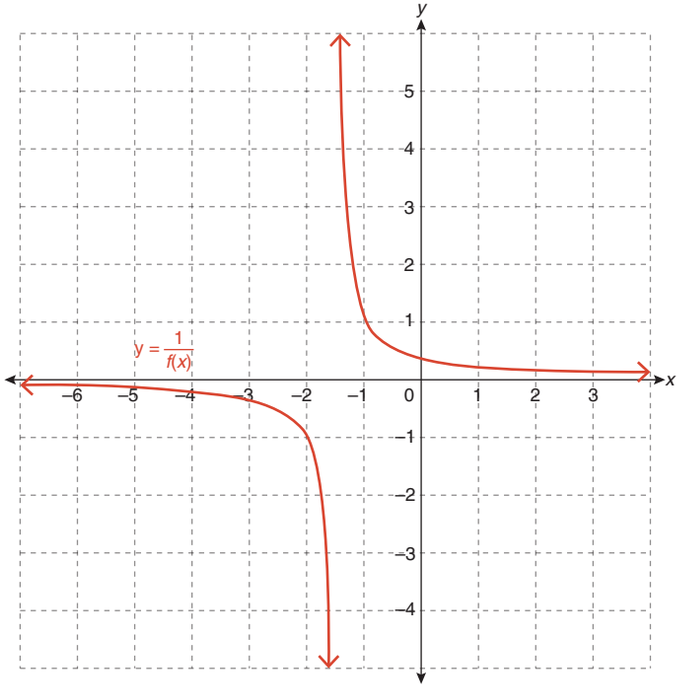
2. Describe the relationships between the graphs of $y = f(x)$ and $y = \frac{1}{f(x)}$.

3. For the given graph, determine the location of any asymptotes of $y = \frac{1}{f(x)}$ and the locations where the graphs of $y = f(x)$ and $y = \frac{1}{f(x)}$ will intersect.



4. Sketch the graph of $y = \dfrac{1}{2-x}$.

5. Use the graph of $y = \dfrac{1}{f(x)}$ to sketch $y = f(x)$.

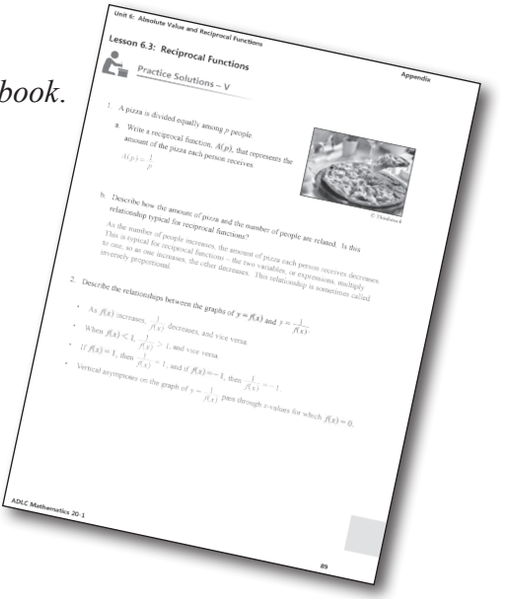


6. In functions of the form $y = \frac{1}{f(x)}$, why do vertical asymptotes occur when $f(x) = 0$?

Mark your work for *Lesson 6.3 Practice – V* 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 6.3 Practice – V* is _____.


Unit 6: Absolute Value and Reciprocal Functions

Lesson 6.3: Reciprocal Functions

Appendix

Practice Solutions – V

1. A pizza is divided equally among p people.

a. Write a reciprocal function, $A(p)$, that represents the amount of the pizza each person receives.

$A(p) = \frac{1}{p}$

b. Describe how the amount of pizza and the number of people are related. Is this relationship typical for reciprocal functions?

As the number of people increases, the amount of pizza each person receives decreases. This is typical for reciprocal functions – the two variables, or expressions, multiply to one, so as one increases, the other decreases. This relationship is sometimes called inversely proportional.

2. Describe the relationships between the graphs of $y = f(x)$ and $y = \frac{1}{f(x)}$.

- As $f(x)$ increases, $\frac{1}{f(x)}$ decreases, and vice versa.
- When $f(x) < 1$, $\frac{1}{f(x)} > 1$, and vice versa.
- If $f(x) = 1$, then $\frac{1}{f(x)} = 1$, and if $f(x) = -1$, then $\frac{1}{f(x)} = -1$.
- Vertical asymptotes on the graph of $y = \frac{1}{f(x)}$ pass through x-values for which $f(x) = 0$.

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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.403 #1a
2				p.403 #2a
3				p.404 #3a
4				p.404 #7a
5				p.405 #10a
6				p.404 #4

Please return to *Lesson 6.3* to continue your work in *Unit 6: Absolute Value and Reciprocal Functions*.