

Chapter 8 (Sections 1, 2, 3 and 6) Test Review

Section 8.1: Operations on functions					
Success criteria:	Rating:				
	Low..... I got this!				
- I can simplify rational expressions and use factoring to complete this process when necessary	1	2	3	4	5
- I can multiply rational expressions	1	2	3	4	5
$\frac{-4ab}{21c} \cdot \frac{14c^2}{22a^2}$	$\frac{x^2 + 3x - 10}{x^2 + 8x + 15} \cdot \frac{x^2 + 5x + 6}{x^2 + 4x + 4}$				
- I can divide rational expressions	1	2	3	4	5
$\frac{a^2 - b^2}{6b} \div \frac{a + b}{36b^2}$	$\frac{y^2 - y - 12}{y + 2} \div \frac{y - 4}{y^2 - 4y - 12}$				

- I can simplify complex fractions	1	2	3	4	5
$\frac{\frac{x^2 + 7x + 10}{x + 2}}{\frac{x^2 + 2x - 15}{x + 2}}$			$\frac{1}{\frac{n^2 - 6n + 9}{n + 3}}$ $2n^2 - 18$		

Section 8.2: Adding and Subtracting Rational Expressions

Success criteria:	Rating:				
	Low..... I got this!				
- I can determine the LCM (Least Common Multiple) of polynomials	1	2	3	4	5
- I can add rational expressions	1	2	3	4	5
- I can subtract rational expressions	1	2	3	4	5
$\frac{x + 2}{x - 5} + 6$			$\frac{7}{y - 2} - \frac{11}{2 - y}$		

$$\frac{3}{4b} - \frac{2}{5b} - \frac{1}{2b}$$

$$\frac{m+3}{m^2-6m+9} - \frac{8m-24}{9-m^2}$$

Section 8.6: Solving Rational Equations and Inequalities

Success criteria:	Rating: Low..... I got this!
- I can solve a rational equation $\frac{3}{y} + \frac{7}{y} = 9$	$\begin{matrix} 1 & 2 & 3 & 4 & 5 \\ \frac{3x+2}{4} = \frac{9}{4} - \frac{3-2x}{6} \end{matrix}$
$\frac{1}{r^2-1} = \frac{2}{r^2+r-2}$	$\frac{x}{x^2-1} + \frac{2}{x+1} = 1 + \frac{1}{2x-2}$

- I can solve a rational inequality	1	2	3	4	5
$\frac{1}{3b} - \frac{3}{4b} > \frac{1}{6}$					

Section 8.3: Graphing Rational Functions					
Success criteria:	Rating:				
	Low..... I got this!				
- I can graph a rational function by using a table of points	1	2	3	4	5
- I can determine if and where any vertical asymptotes occur when graphing a rational function	1	2	3	4	5
- I can determine if and where any points of discontinuity (holes) occur when graphing a rational function	1	2	3	4	5
- I can determine if and where any horizontal asymptotes occur when graphing a rational function	1	2	3	4	5

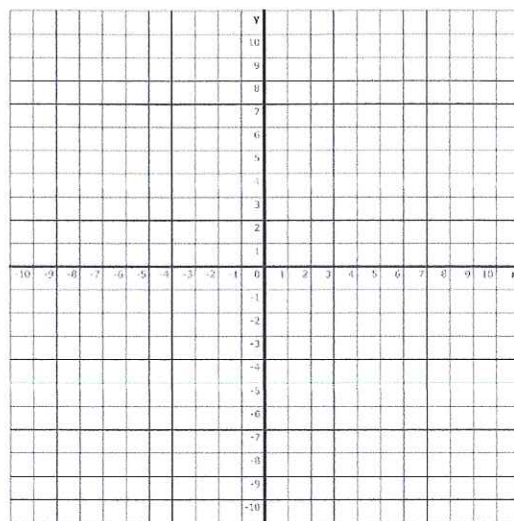
For each of the following, identify any holes and vertical asymptotes. If there are not any, state "none". List a table of values. Then graph the function, clearly identifying the vertical and horizontal asymptotes and holes.

$$f(x) = \frac{4}{x - 2}$$

Hole(s): _____

Vertical Asymptotes: _____

Table:

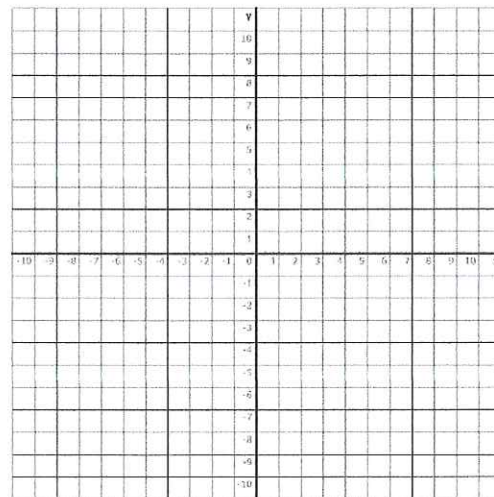


$$f(x) = \frac{5}{(x + 1)(x - 3)}$$

Hole(s): _____

Vertical Asymptotes: _____

Table:



$$f(x) = \frac{x^2 + 2x + 1}{x - 1}$$

Hole(s): _____

Vertical Asymptotes: _____

Table:

