

**Chapter 9 and 10 Self-Assessment**

Emerging: I am starting to understand the ideas

Developing: I am understanding many of the ideas but I make errors

Proficient: I have a complete understanding of the skills and concepts

Extending: I am pushing my learning to connect to advanced problems and ideas

Section		Level of comprehension	Assignment Completed
9.1	<ul style="list-style-type: none"> <li>Graph, analyze, and compare rational functions using transformations</li> <li>Determine the behavior of graphs of functions near non-permissible values</li> <li>Find asymptotes, intercepts, domain and range of rational functions</li> </ul>		
9.2	<ul style="list-style-type: none"> <li>Graph, analyze and compare rational functions from the equations</li> <li>Determine whether graphs of rational functions have an asymptote or a point of discontinuity for a non-permissible value.</li> <li>Rewrite the equation of a rational function into the form <math>y = \frac{a}{x-h} + k</math></li> </ul>		
10.1	<ul style="list-style-type: none"> <li>Sketch the graph of a function that is a sum or difference of two functions</li> <li>Determine domain and range of a functions that is a sum or difference of two functions</li> <li>Write equations of a functions that is a sum or difference of two functions</li> </ul>		
10.2	<ul style="list-style-type: none"> <li>Sketch the graph of a function that is a sum or difference of two functions</li> <li>Determine domain and range of a functions that is a sum or difference of two functions</li> <li>Write equations of a functions that is a sum or difference of two functions</li> </ul>		

10.3	<ul style="list-style-type: none"> <li>• Determine the value of composite functions</li> <li>• Write the equation of a composite function and explain any restrictions</li> <li>• Sketch the graph of a composite function</li> </ul>		
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Work Habits	G 100% to 80% of the time	S 80% to 60% of the time	N less than 60% of the time
Assignments completed and handed in on time			
Arrive to class on time			
Return after break on time			
Work on the math assignment during class			
Phone use limited to checking math answer keys posted on the website			
If absent: watching the lesson video or reading the lesson notes			

1. Explain how to rewrite a rational function in the form  $y = \frac{a}{x-h} + k$

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2. Explain how to find the vertical and horizontal asymptotes from  $y = \frac{a}{x-h} + k$

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3. How do you know if the non-permissible value of a rational function creates a vertical asymptote or a point of discontinuity?

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4. Make your own composite function. (**Where  $f(g(x))$  is NOT a linear function**)

$$f(x) =$$

$$g(x) =$$

$$f(g(x)) =$$

5. Graph your composite function (Use the grid that make sense for your function) Label your axis

