

**Chapter 1 and 2 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 and posted
1.1	<ul style="list-style-type: none"> <li>I can compare the graphs of a set of functions in the form to <math>y = f(x)</math> <math>y = f(x - h) + k</math> and generalize a rule about <math>h</math> and <math>k</math></li> <li>I can write the equation of a function whose graph is a vertical and or horizontal translation of <math>y = f(x)</math></li> </ul>		
1.2	<ul style="list-style-type: none"> <li>I can demonstrate an understanding of the effects of reflections on the graphs of functions and their related equations. X-axis and Y-axis</li> <li>I can demonstrate an understanding of horizontal and vertical stretches on the graphs of functions and their related equations.</li> </ul>		
1.3	<ul style="list-style-type: none"> <li>I can sketch graphs <math>y = af(b(x - h)) + k</math> where the graph of <math>y = f(x)</math> is given</li> <li>I can write an equation given a graph, which is a transformation of <math>y = f(x)</math></li> </ul>		
1.4	<ul style="list-style-type: none"> <li>I can find the inverse of a relation from a graph</li> <li>I can find the inverse of a relation algebraically</li> <li>I know when the notation <math>f^{-1}(x)</math> can be used</li> </ul>		
2.1	<ul style="list-style-type: none"> <li>I can graph radical functions using transformations</li> <li>I can identify the domain and range of radical functions</li> </ul>		
2.3	<ul style="list-style-type: none"> <li>I can determine approximate solutions of radical equations graphically by manual graphing.</li> </ul>		

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			

### Communication Questions

1. Consider the functions  $f(x) = a\sqrt{x}$   $a \neq 1$  and  $f(x) = \sqrt{bx}$   $b \neq 1$ .

a) Rewrite  $f(x) = \sqrt{16x}$  as a function with only a vertical stretch.

b) Rewrite  $f(x) = 9\sqrt{x}$  as a function with only a horizontal stretch.

c) In what situations would  $f(x) = a\sqrt{x}$  produce the same graph as  $f(x) = \sqrt{bx}$ . where  $a \neq 1$  and  $b \neq 1$ .

2. Explain why the zeroes of a quadratic function do not change with a vertical stretch.

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