

Unit 4: BF-Building Functions		
4.0	In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.	
	3.5	<i>In addition to score 3.0 performance, partial success at score 4.0 content</i>
3.0	<p>Write a function that describes a relationship between two quantities. <b>(BF.A.1)</b></p> <ol style="list-style-type: none"> <li>Determine an explicit expression, a recursive process, or steps for calculation from a context.</li> <li>Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.</li> <li>(+) Compose functions. For example, if <math>T(y)</math> is the temperature in the atmosphere as a function of height, and <math>h(t)</math> is the height of a weather balloon as a function of time, then <math>T(h(t))</math> is the temperature at the location of the weather balloon as a function of time.</li> </ol> <ul style="list-style-type: none"> <li>I can write a function given two quantities.</li> <li>When given an absolute value function in words or in function notation, I can make sense of it, and can create a table of values and a graph to represent it.</li> </ul> <p>Find inverse functions. <b>(BF.B.4)</b></p> <ol style="list-style-type: none"> <li>Solve an equation of the form <math>f(x) = c</math> for a simple function <math>f</math> that has an inverse and write an expression for the inverse. For example, <math>f(x) = 2x^3</math> or <math>f(x) = (x+1)/(x-1)</math> for <math>x \neq 1</math>.</li> <li>(+) Verify by composition that one function is the inverse of another.</li> <li>(+) Read values of an inverse function from a graph or a table, given that the function has an inverse.</li> <li>(+) Produce an invertible function from a non-invertible function by restricting the domain.</li> </ol> <ul style="list-style-type: none"> <li>When I have an equation that defines a linear function, I know how to find its inverse.</li> <li>I can write a linear function to model given data and find the inverse of the function.</li> <li>When given a linear function defined using function notation, I know how to find its inverse.</li> </ul>	
	2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content
2.0	<p><b>The student will recognize or recall specific vocabulary, such as:**</b></p> <p><b>(BF.A.1)</b></p> <ul style="list-style-type: none"> <li>Function notation</li> <li>Linear Function</li> </ul> <p><b>(BF.B.4)</b></p> <ul style="list-style-type: none"> <li>Inverse Function</li> </ul> <p><b>The student will perform basic processes</b></p> <p><b>(BF.A.1)</b></p> <ul style="list-style-type: none"> <li>I can make sense of rules of functions when they are written in function notation, and create tables and graphs to represent the functions.</li> </ul> <p><b>(BF.B.4)</b></p> <ul style="list-style-type: none"> <li>I understand the meaning of “inverse function” and how it could be found.</li> <li>When given a linear function that represents a situation, I can use words and equations to describe the inverse function</li> </ul>	
	1.5	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>
1.0	With help, partial success at score 2.0 content and score 3.0 content	
	0.5	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>
0.0	Even with help, no success	