

Common Core State Standards for Mathematics		
Domain: Building Functions		
Model Relationships (F-BF.1-2)		
High School		
Score 4.0	In addition to Score 3.0, in-depth inferences and applications that go beyond instruction to the standard. The student will:	Example Activities
	<ul style="list-style-type: none"> compose functions based on given contexts (F-BF.1c) 	
	3.5 In addition to score 3.0 performance, in-depth inferences and applications with partial success.	
Score 3.0	<p>The student will:</p> <ul style="list-style-type: none"> determine an explicit expression, recursive process or steps for calculation from context (F-BF.1a) combine standard function types using arithmetic operations (F-BF.1b) write arithmetic and geometric sequences both recursively and with an explicit formula; use them to model situations, and translate between the two forms (F-BF.2) <p>The student exhibits no major errors or omissions.</p>	<p><u>I Do, You Do, We Do Recursive to Function Notation Practice</u> – The teacher will work an example for the class and review the process of converting from recursive to function notation. Students will then be given the recursive notation of the geometric sequence $f(n) = -\frac{1}{2}f(n-1)$ and asked to convert it to function notation.</p> <p>Solution: $f(x) = \left(-\frac{1}{2}\right)^{x-1}$</p> <p>The teacher will monitor students as they work and provide them with immediate and specific feedback. As students successfully convert the notation the teacher will provide the students with more practice examples similar to examples.</p> <p>To summarize, the teacher will solicit student input to complete a class wide example converting from recursive to function notation.</p>
	2.5 No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content	
Score 2.0	<p>There are no major errors or omissions regarding the simpler details and processes as the student will:</p> <ul style="list-style-type: none"> recognize or recall specific vocabulary, such as: <ul style="list-style-type: none"> explicit, arithmetic sequence, geometric sequence perform basic processes, such as: <ul style="list-style-type: none"> write a function that describes a relationship between two quantities (from a table or a graph) (F-BF.1) <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>	<p><u>Interactive Word Wall</u> – Students will interact with key vocabulary such as explicit, arithmetic sequence, geometric sequence by creating an example or drawing a picture of each word. The students will place the non-linguistic representation of each word into their interactive vocabulary notebooks. These vocabulary notebooks are used during practice and even during assessment to allow the students to access key concepts in their memory using their own non-linguistic representations.</p>
	1.5 Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content	
Score 1.0	With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.	
	0.5 With help, a partial understanding of the 2.0 content but not the 3.0 content	
Score 0.0	Even with help, no understanding or skill demonstrated.	