

Common Core State Standards for Mathematics		
Domain: Interpreting Functions		
Function Notation (F-IF.1-3)		
Level: 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
	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"> interpret statements that use function notation in terms of a context (F-IF.2) recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. (F-IF.3) <p>The student exhibits no major errors or omissions.</p>	Students will be placed in groups of two. Each student will be tasked to individually determine the context of a statement that contains function notation. The students will then participate in a pair-share activity in which each student will share with their partner their interpretation of the statement. Each pairing will be required to agree upon a single interpretation. Once this has occurred students will change partners and compare/contrast their interpretation to their new partner's interpretation. The class will then participate in a share out to determine what they agree upon as a class wide interpretation.
	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"> relation, domain, range, function, recursive perform basic processes, such as: <ul style="list-style-type: none"> understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. (F-IF.1) understand that if f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input of x. (F-IF.1) understand that the graph of f is the graph of the equation $y = f(x)$. (F-IF.1) use function notation (F-IF.2) evaluate functions for inputs in their domains (F-IF.2) <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p>	<u>Classroom Graph</u> – The teacher will clear the center of the classroom and tape two intersecting lines on the floor to create a Cartesian plane. The teacher will then display a function in the form $y=f(x)$. Every student will be assigned an x value with which to evaluate the function. The students will be tasked with standing in their correct position on the Cartesian plane in order to correctly represent the output for their specific input. Once all students are in place the teacher should verify the accuracy of all students' placements and the lead the class in a discussion about the characteristics of the graph of the function. The process can be repeated for different functions.
	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.	