Functions

	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No
	4 - Mastery	3 - Froncient		I - Delow Dasic	Evidence
Produce	Can extend	Compose functions to verify	Compose functions to verify	Given a simple function,	Little
inverse	thinking beyond	if one function is the inverse	if one function is the inverse	find its inverse	evidence
functions	the standard,	of another function	of another function	Read values of an inverse	of
(F.BF.4)	including tasks	Read values of an inverse	Read values of an inverse	function from a graph <u>or</u>	reasoning
	that may involve	function from a graph and	function from a graph <u>and</u>	table	or
	one of the	table	table		application
	following:				to solve
		Produce an invertible	ldentify a domain that that	Identify if a function is	the
	Designing	function from a non-	will produce an invertible	invertible from a graph	problem
	Connecting	invertible function by	function from a non-		
	 Synthesizing 	restricting the domain so	invertible function		Does not
	 Applying 	that the function is one-to-			meet the
	 Justifying 	one			criteria in
	Critiquing				a level 1
	 Analyzing 				
	Creating				
	 Proving 				

Instructional Focus: Produce inverse functions

F.BF.4 Find inverse functions.

b. (+) Verify by composition that one function is the inverse of another.

c. (+) Read values of an inverse function from a graph or a table, given that the function has an inverse.

d. (+) Produce an invertible function from a non-invertible function by restricting the domain.

Functions

Instructional Focus: Graph and interpret rational functions

	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No Evidence
Identify key features of	Can extend thinking	Graph rational	Graph rational	Given the graphs of	Little
graphs (F.IF.7)	beyond the	functions, given the	functions, given the	rational functions,	evidence
The concentration C (in	standard, including	model, and interpret all	model, and identify all	identify all related key	of
mg/dl), of a certain	tasks that may	related key features of a	related key features of a	features of a graph.	reasoning
prescription drug in a person's bloodstream is determined using the rational function: $c(t) = \frac{50t}{t^2 + 25}$ where t is the time (in hours) after taking the prescription drug What is the equation of the horizontal asymptote for the graph of the function? What does this value (and the fact that it is an asymptote) represent in the context of this problem?	 involve one of the following: Designing Connecting Synthesizing Applying Justifying Critiquing Analyzing Creating Proving 	 graph <u>in context of a</u> real world situation. equations of asymptotes intercepts (x and y) end behavior 	 equations of asymptotes intercepts (x and y) end behavior 	 equations of asymptotes intercepts (x and y) end behavior 	or application to solve the problem Does not meet the criteria in a level 1

F.IF.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more

complicated cases. \bigstar

d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.