

Common Core State Standards for Mathematics		
Domain: Interpreting Functions		
Graphing Functions (F-IF.7)		
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	The student will: - graph functions expressed symbolically and show key features of the graph in simple cases and use technology for more complicated cases: (F-IF.7abce) - linear and quadratic functions showing intercepts, maxima and minima - square root, cube root and piece-wise defined functions, including step functions and absolute value functions - polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior - exponential and logarithmic functions, showing intercepts and end behavior - trigonometric functions, showing period, midline and amplitude The student exhibits no major errors or omissions.	Function Line – The class will be asked to stand in two single file lines facing a partner. Students in line A will be asked to use technology to graph a function (linear, quadratic, square root, cube root, piece wise, polynomial, exponential, logarithmic, or trigonometric) and line B will be asked to use technology to graph a different function (linear, quadratic, square root, cube root, piece wise, polynomial, exponential, logarithmic, or trigonometric). Each student will then explain the key features of their function to the partner who they are paired with. After both partners have explained their function, line A will slide one person to the right and new functions will be displayed for each line and the process will repeat.
	2.5 No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content	
Score 2.0	There are no major errors or omissions regarding the simpler details and processes as the student will: - recognize or recall specific vocabulary, such as: - piecewise functions, step functions, midline, amplitude, zeros, asymptote - perform basic processes, such as: - identify features of a variety of graphs (e.g., intercepts, maxima, minima, period, midline, amplitude, zeros, end behavior) (F-IF.7abce) However, the student exhibits major errors or omissions regarding the more complex ideas and processes.	Freyer Model – Students will be given key vocabulary words such as piecewise functions, step functions, midline, amplitude, zeros, asymptote, etc. The students will then be tasked to use available resources to define the word, draw a picture or list characteristics, write an example and non-example.
	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.	
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