Unit 3: Representing Polynomial Functions

	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No Evidence
Rewrite expressions (A.SSE.2) Polynomial identities (A.APR.4)  Remainder Theorem (A.APR.2)	Can extend thinking beyond the standard, including tasks that may involve one of the following:  Designing Connecting Synthesizing Applying Justifying Critiquing Analyzing Creating Proving	Rewrite polynomial expressions in different equivalent forms by using all of the following:  • greatest common factors • difference of two squares • trinomials • quadratic-like trinomials (degree 4 or higher) • sums or difference of cubes  Factor a polynomial using either synthetic division or long division, writing  a(x)/b(x), in the form $q(x) + \frac{r(x)}{b(x)}$ and identify • if p(a) is zero, then (x-a) is a factor • if p(a) is not zero, then (x-a) is not a factor • p(a) is the remainder when dividing p(x) by x-a. • the remainder is equivalent to p(a)	Rewrite polynomial, rational, and exponential expressions in different equivalent forms by doing 4 of the following:  • greatest common factors  • difference of two squares  • trinomials  • quadratic-like trinomials (degree 4 or higher)  • sums or difference of cubes  Can perform synthetic or long division correctly and are able to state the remainder, writing $\frac{a(x)}{b(x)}$ , in the form $q(x) + \frac{r(x)}{b(x)}$	Rewrite polynomial, rational, and exponential expressions in different equivalent forms by doing 3 of the following:  • greatest common factors  • difference of two squares  • trinomials  • quadratic-like trinomials (degree 4 or higher)  • sums or difference of cubes  Can perform synthetic or long division with a structural error, but were able to follow through with their mistake	Little evidence of reasoning or application to solve the problem  Does not meet the criteria in a level 1
Solve equations (A.REI.1)		Explain each step in solving an equation using properties of equality and justify the solution method	Explain each step in solving an equation using properties of equality.	Identify/match properties of equality used for each step in solving an equation.	
Inverse of a function (F.BF.4a)		Can do all of the following:  Read values of an inverse function from a graph and table  Given a simple function, find its inverse  Compose functions to verify if one function is the inverse of another function	Can do 2 of the following:  Read values of an inverse function from a graph and table  Given a simple function, find its inverse  Compose functions to verify if one function is the inverse of another function	Can do 1 of the following:  Read values of an inverse function from a graph and table  Given a simple function, find its inverse  Compose functions to verify if one function is the inverse of another function	
Interpret Solutions (A.CED.3)		Interpret solutions as viable or nonviable options in context of the situation	Interpret solutions in context of the situation.	Identify solutions	