| Standard | 4 - Mastery | 3 - Proficient | 2 - Basic | 1- Below Basic | 0 - No Evidence |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CA-A1.A. Understand the concept of a function and use function notation. | A. Apply composite function properties in an authentic task. <br> AND <br> A. Explain why an authentic task does not represent a function with explicit examples. | A. Use function notation to model a function from an authentic task. AND <br> A. Explain why an authentic task represents a function with explicit examples. | A. Write the relationship in words, as expression, or an equation not using function notation. <br> AND <br> A. Explain why an authentic task represents a function without explicit examples. | A. Recognize $x$ is the independent variable and $f(x)$ is the dependent variable. <br> AND <br> A. Determine if a relation is a function. | A. Not yet able to understand a function or use function notation. |
| CA-A1.B. Interpret the dependent and independent variables in the context of functions. | B. Describe the relationship the dependent and independent variables have within an authentic task. | B. Identify and interpret the independent and dependent variables within an authentic task. | B. Identify the independent and dependent variable within an authentic task | B. Identify the independent or dependent variable within an authentic task. | B. Not yet able to determine the independent or dependent variables within an authentic task. |
| CA-A1.C. Create and interpret expressions for functions in terms of the situations they model including selecting appropriate domains for these functions. | C. Find and correct errors of functions which represent an authentic task. Explain errors and corrections. Defend function if no error exists. | C. Write and interpret functions representing an authentic task including stating appropriate domain. | C. Write functions representing an authentic task. | C. Identify the parts of a function given for an authentic task. | C. Not yet able to write and explain a function from an authentic task which includes stating appropriate domain |
| CA-A1.D. Understand the relationship between a function and its graph. | D. Describe key parts of the graph and the corresponding parts (or process to find) making connections to the equation of a function. | D. Describe the type of relationship between a function and its graph within an authentic task. | D. Match a function to a graph. | D. Identify key features of a graph. | D. Not yet able to explain the relationship between a function and its graph. |
| CA-A1.E. Find the domain, including implied domains, and the range of a function. | E. Explain and defend the implied domain of a function from an authentic task. | E. Find the domains, implied domains, and ranges of functions within an authentic task. | E. Find the domains, implied domains, and ranges of functions using equations. | E. Find the domain and range of functions graphically. | E. Not yet able to find the domains, implied domains, and ranges of functions. |
| CA-A1.F. Analyze functions using different representations (verbally, graphically, algebraically). <br> *Analyze: Identify key features such as domain, range, increasing, decreasing, intercepts, etc. | F. Justify the most appropriate representations of functions and defend interpretations within an authentic task. | F. From various representations, analyze and interpret a function within an authentic task. | F. From various representations, analyze and interpret a function. | F. From one representation, analyze function (verbally, graphically, or algebraically). | F. Not yet able to analyze functions using different representations within an authentic task. |

