

## Mathematics Performance Task Specific Rubric - Algebra 2 Heat Wave Task

	4	3	2	1
<b>Problem Solving and Reasoning</b>	<ul style="list-style-type: none"> <li>-Shows a thorough understanding of the defining characteristics of parent functions, their graphs and accurately identifies the parent functions.</li> <li>- Analyzes the graph of the pre-image and the image of a function, using a transformational approach, write the equation of the image.</li> <li>- Analyzes the graph to identify the domain, range, zeros, and intercepts of a function(s).</li> <li>- Describes restricted/discontinuous domains and ranges.</li> <li>- Analyzes the graph of a function to accurately identify intervals on which the function is increasing or decreasing.</li> <li>- Describes the impact of transformations on the end behavior of a function.</li> </ul>	<ul style="list-style-type: none"> <li>-Shows some understanding of the defining characteristics of parent functions and their graphs and accurately identifies the parent functions.</li> <li>-Makes some connections between the pre-image and image of a function to determine the equation of the image.</li> <li>-Writes the equation of a function given its graph.</li> <li>- Analyzes the graph to identify most of the domain, range, zeros, and intercepts of a function.</li> <li>-Describes restricted/discontinuous domain and range.</li> <li>- Analyzes the graph of a function to accurately identify most of the intervals on which the function is increasing or decreasing.</li> <li>-Describes the impact of most of the transformations on the end behavior of a function.</li> </ul>		<ul style="list-style-type: none"> <li>-Shows little to no understanding of the characteristics of parent functions and the graphs.</li> <li>-Makes no connection between the image and pre-image of a function.</li> <li>- Does not come up with an equation of a function given its graph.</li> <li>- Does not attempt to identify the domain, range, zeros, or intercepts of functions.</li> <li>- Does not identify restricted/discontinuous domain or range.</li> <li>- Does not identify the intervals on which the function is increasing or decreasing.</li> <li>- Does not identify the impact of transformations on the end behavior of a function.</li> </ul>

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<b>Representations and Connections</b>	<ul style="list-style-type: none"> <li>- Uses abstract or symbolic representation to discuss and analyze characteristics of a graphical model in relation to an algebraic model</li> <li>- Recognizes and uses mathematical connections to analyze the key characteristics of a graphical model in relation to an algebraic models</li> </ul>	<ul style="list-style-type: none"> <li>- Uses appropriate and accurate mathematical notations to construct representations to express and clarify thoughts that answer the question.</li> </ul>		<ul style="list-style-type: none"> <li>- Makes no attempt to construct a representation to express thoughts.</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>- Uses precise mathematical language to clearly communicate analysis and thinking</li> </ul>	<ul style="list-style-type: none"> <li>- Uses mathematical language to communicate analysis and thinking in a sequential, coherent way.</li> </ul>		<ul style="list-style-type: none"> <li>-Shows little or no communication of process or thinking.</li> </ul>