

Kennedy High School: Critical Thinking and Problem Solving						
Goal: 9/12	Exemplary (4)	Goal: Proficient (3)	Developing (2)	Emerging (1)	Student Score	Teacher Score
Problem Solving	<p>Creates a model to simplify a complicated situation and identifies limitations of model</p> <p>Analyzes all given constraints, goals and definitions and implied assumptions</p> <p>Uses novel problem solving strategies and tools and/or extends previous knowledge correctly to a given problem.</p>	<p>Creates a model to simplify complicated situation.</p> <p>Analyzes all given constraints, goals and definitions</p> <p>Uses appropriate problem solving strategies and tools</p>	<p>Creates a limited model to simplify a complicated situation</p> <p>Attends to some of the given constraints</p> <p>Uses inappropriate or inefficient problem solving strategies and tools</p>	<p>Does not provide a model</p> <p>Ignores given constraints</p> <p>Uses few, if any, problem solving strategies and tools</p>		
Reasoning and Proof	<p>Constructs logical, correct, complete solution with justifications and identifies any sources of error.</p> <p>Results are interpreted correctly in terms of context, including addressing reasonableness of final answer, and makes connections to similar math content in different contexts.</p>	<p>Constructs logical, correct, complete solution with justifications</p> <p>Results are interpreted correctly in terms of context, including addressing reasonableness of final answer</p>	<p>Provides partially correct solutions with justification or correct solutions without logic or justification</p> <p>Results are interpreted partially or incorrectly in terms of context</p>	<p>Provides partially correct or incorrect solutions without justifications</p> <p>Results are not interpreted in terms of context</p>		
Communication and Representation	<p>Uses multiple representations (diagrams, tables, graphs, formulas) and key explanations to enhance the audience's understanding of the solution; only relevant representations are included</p> <p>Uses precise definitions and accurate formal mathematical notation (units of measure, labeled, axes, equation formats, etc.)</p>	<p>Uses multiple representations (diagrams, tables, graphs, formulas) to help the audience follow the chain of reasoning; only relevant representations are included</p> <p>With few exceptions, uses precise definitions and accurate mathematical notation (units of measure, labeled axes, equation formats, etc)</p>	<p>Uses representations (diagrams, tables, graphs, formulas) that provide help to the audience follow to the chain of reasoning in a limited way; extraneous representations may be included</p> <p>Uses imprecise definitions or incomplete mathematical notation (units of measure, labeled axes, equation formats, etc)</p>	<p>Does not use representations (diagrams, tables, graphs, formulas) or uses few representations in way that confuse the audience</p> <p>Uses incorrect definitions or mathematical notation (units of measure, labeled axes, equation formats, etc)</p>		
<b>Total Score (out of 12):</b>						