

# Achievement Check Rubric

Category	Level 1	Level 2	Level 3	Level 4
<b>Knowledge/ Understanding</b>	<ul style="list-style-type: none"> <li>demonstrates limited knowledge of how to maximize the volume of a square-based prism for a fixed surface area</li> </ul>	<ul style="list-style-type: none"> <li>demonstrates some knowledge of how to maximize the volume of a square-based prism for a fixed surface area</li> </ul>	<ul style="list-style-type: none"> <li>demonstrates considerable knowledge of how to maximize the volume of a square-based prism for a fixed surface area</li> </ul>	<ul style="list-style-type: none"> <li>demonstrates thorough knowledge of how to maximize the volume of a square-based prism for a fixed surface area</li> </ul>
<b>Thinking</b>	<ul style="list-style-type: none"> <li>uses planning and critical-thinking processes with limited effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>uses planning and critical-thinking processes with some effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>uses planning and critical-thinking processes with considerable effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>uses planning and critical-thinking processes with a high degree of effectiveness</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with limited effectiveness</li> <li>uses mathematical vocabulary and notation with limited effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with some effectiveness</li> <li>uses mathematical vocabulary and notation with some effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with considerable effectiveness</li> <li>uses mathematical vocabulary and notation with considerable effectiveness (e.g., expresses solutions, diagrams, charts, etc., in an organized manner)</li> </ul>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with a high degree of effectiveness</li> <li>uses mathematical vocabulary and notation with a high degree of effectiveness (e.g., expresses solutions, diagrams, charts, etc., in a clear and detailed manner)</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>applies knowledge to this context with limited effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>applies knowledge to this context with some effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>applies knowledge to this context with considerable effectiveness (e.g., varies dimensions to find related values of the volume and provides mathematical support)</li> </ul>	<ul style="list-style-type: none"> <li>applies knowledge to this context with a high degree of effectiveness (e.g., varies dimensions to find related values of the volume and provides detailed mathematical support)</li> </ul>