

Apply mathematics in a variety of settings. Build new mathematical knowledge through problem solving. Solve problems that arise in mathematics and in other contexts.

Apply and adapt a variety of appropriate strategies to solve problems. Monitor and reflect on the process of mathematical problem solving.

Process Dimensions	**6/ 5	4	3	*2 / 1
<b>Making Sense of the Task</b> <i>Interpret the concepts of the task and translate them into mathematics.</i>	The interpretation and/or translation of the task are <ul style="list-style-type: none"> <li>thoroughly developed and/or</li> <li>enhanced through connections and/or extensions to other mathematical ideas or other contexts.</li> </ul>	The interpretation and translation of the task are <ul style="list-style-type: none"> <li>adequately developed and</li> <li>adequately displayed.</li> </ul>	The interpretation and/or translation of the task are <ul style="list-style-type: none"> <li>partially developed, and/or</li> <li>partially displayed.</li> </ul>	The interpretation and/or translation of the task are <ul style="list-style-type: none"> <li>underdeveloped,</li> <li>sketchy,</li> <li>using inappropriate concepts,</li> <li>minimal, and/or</li> <li>not evident.</li> </ul>
<b>Representing and Solving the Task</b> <i>Use models, pictures, diagrams, and/or symbols to represent and solve the task situation and select an effective strategy to solve the task.</i>	The strategy and representations used are <ul style="list-style-type: none"> <li>elegant (insightful),</li> <li>complex,</li> <li>enhanced through comparisons to other representations and/or generalizations.</li> </ul>	The strategy that has been selected and applied and the representations used are <ul style="list-style-type: none"> <li>effective and</li> <li>complete.</li> </ul>	The strategy that has been selected and applied and the representations used are <ul style="list-style-type: none"> <li>partially effective and/or</li> <li>partially complete.</li> </ul>	The strategy selected and representations used are <ul style="list-style-type: none"> <li>underdeveloped,</li> <li>sketchy,</li> <li>not useful,</li> <li>minimal,</li> <li>not evident, and/or</li> <li>in conflict with the solution/outcome.</li> </ul>
<b>Communicating Reasoning</b> <i>Coherently communicate mathematical reasoning and clearly use mathematical language.</i>	The use of mathematical language and communication of the reasoning are <ul style="list-style-type: none"> <li>elegant (insightful) and/or</li> <li>enhanced with graphics or examples to allow the reader to move easily from one thought to another.</li> </ul>	The use of mathematical language and communication of the reasoning <ul style="list-style-type: none"> <li>follow a clear and coherent path throughout the entire work sample and</li> <li>lead to a clearly identified solution/outcome.</li> </ul>	The use of mathematical language and communication of the reasoning <ul style="list-style-type: none"> <li>are partially displayed with significant gaps and/or</li> <li>do not clearly lead to a solution/outcome.</li> </ul>	The use of mathematical language and communication of the reasoning are <ul style="list-style-type: none"> <li>underdeveloped,</li> <li>sketchy,</li> <li>inappropriate,</li> <li>minimal, and/or</li> <li>not evident.</li> </ul>
<b>Accuracy</b> <i>Support the solution/outcome.</i>	The solution/outcome is correct and enhanced by <ul style="list-style-type: none"> <li>extensions,</li> <li>connections,</li> <li>generalizations, and/or</li> <li>asking new questions leading to new problems.</li> </ul>	The solution/outcome given is <ul style="list-style-type: none"> <li>correct,</li> <li>mathematically justified, and</li> <li>supported by the work.</li> </ul>	The solution/outcome given is <ul style="list-style-type: none"> <li>incorrect due to minor error(s), or</li> <li>a correct answer but work contains minor error(s)</li> <li>partially complete, and/or</li> <li>partially correct</li> </ul>	The solution/outcome given is <ul style="list-style-type: none"> <li>incorrect and/or</li> <li>incomplete, or</li> <li>correct, but               <ul style="list-style-type: none"> <li>conflicts with the work, or</li> <li>not supported by the work.</li> </ul> </li> </ul>
<b>Reflecting and Evaluating</b> <i>State the solution/outcome in the context of the task.</i>  <i>Defend the process, evaluate and interpret the reasonableness of the solution/outcome.</i>	Justifying the solution/outcome completely, the student reflection also includes <ul style="list-style-type: none"> <li>reworking the task using a different method,</li> <li>evaluating the relative effectiveness and/or efficiency of different approaches taken, and/or</li> <li>providing evidence of considering other possible solution/outcomes and/or interpretations.</li> </ul>	The solution/outcome is stated within the context of the task, and the reflection justifies the solution/outcome completely by reviewing <ul style="list-style-type: none"> <li>the interpretation of the task</li> <li>concepts,</li> <li>strategies,</li> <li>calculations, and</li> <li>reasonableness.</li> </ul>	The solution/outcome is not stated clearly within the context of the task, and/or the reflection only partially justifies the solution/outcome by reviewing <ul style="list-style-type: none"> <li>the task situation,</li> <li>concepts,</li> <li>strategies,</li> <li>calculations, and/or</li> <li>reasonableness.</li> </ul>	The solution/outcome is not clearly identified and/or the justification is <ul style="list-style-type: none"> <li>underdeveloped,</li> <li>sketchy,</li> <li>ineffective,</li> <li>minimal,</li> <li>not evident, and/or</li> <li>inappropriate.</li> </ul>

\*\*6 for a given dimension would have most attributes in the list; 5 would have some of those attributes.

\*2 for a given dimension would be underdeveloped or sketchy, while a 1 would be minimal or nonexistent.