<table>
<thead>
<tr>
<th>SCORE LEVEL</th>
<th>MATHEMATICAL KNOWLEDGE</th>
<th>STRATEGIC KNOWLEDGE</th>
<th>EXPLANATION</th>
</tr>
</thead>
</table>
| 4           | * shows complete understanding of the problem's mathematical concepts and principles  
* uses appropriate mathematical terminology and notation (e.g. labels answer as appropriate)  
* executes algorithms completely and correctly | * identifies all the important elements of the problem and shows complete understanding of the relationships among elements  
* reflects an appropriate and systematic strategy for solving the problem  
* gives clean evidence of a complete and systematic solution process | * gives a complete written explanation of the solution process employed; explanation addresses both what was done, and why it was done  
* if a diagram is appropriate, there is a complete explanation of all the elements in the diagram |
| 3           | * shows nearly complete understanding of the problem's mathematical concepts and principles  
* uses nearly correct mathematical terminology and notations  
* executes algorithms completely; computations are generally correct but may contain minor errors | * identifies most of the important elements of the problem and shows general understanding of the relationships among them  
* reflects an appropriate strategy for solving the problem  
* solution process is nearly complete | * gives a nearly complete written explanation of the solution process employed; clearly explains what was done and begins to address why it was done  
* may include a diagram with most of the elements explained |
| 2           | * shows some understanding of the problem's mathematical concepts and principles  
* may contain major computational errors | * identifies some important elements of the problem but shows only limited understanding of the relationships among them  
* appears to reflect an appropriate strategy but application of strategy is unclear, or inappropriate strategy is applied logically and consistently  
* gives some evidence of a solution process | * gives some explanation of the solution process employed, either what was done or rationale for solution process is presented but not both; communication is vague or difficult to interpret  
* may include a diagram with some of the elements explained |
| 1           | * shows limited to no understanding of the problem's mathematical concepts and principles  
* may misuse or fail to use mathematical terms  
* may contain major computational errors | * fails to identify important elements or places too much emphasis on unimportant elements  
* may reflect an inappropriate or inconsistent strategy for solving the problem  
* gives minimal evidence of a solution process: process may be difficult to identify  
* may attempt to use irrelevant outside information | * provides minimal explanation of solution process; may fail to explain or may omit information about what was done  
* explanation does not match presented solution process  
* may include minimal discussion of elements in diagram: explanation of significant elements is unclear |
| 0           | * no answer attempted | * no apparent strategy | * no written explanation of the solution process is provided |

Footnote: "As appropriate" or "if appropriate" relates to whether or not the specific elements are called for in the stem of the item.

Adapted from Lane (1993)

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