### Extended-Response Rubric with Notes: Mathematical Knowledge

**Mathematical Knowledge:**
Knowledge of mathematical principles and concepts which result in a correct solution to a problem.

**General Notes:**
[Use this space and the space at each score point to further define the computations or mathematics expected when solving the problem.]

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<thead>
<tr>
<th>Score Level</th>
<th>Description</th>
<th>Notes</th>
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| 4           | ✦ shows complete understanding of the problem’s mathematical concepts and principles  
✦ uses appropriate mathematical terminology and notations including labeling answer if appropriate  
✦ executes algorithms and computations completely and correctly | The response demonstrates the following: |
| 3           | ✦ shows nearly complete understanding of the problem’s mathematical concepts and principles  
✦ uses mostly correct mathematical terminology and notations  
✦ executes algorithms completely; computations are generally correct but may contain minor errors | The response demonstrates the following: |
| 2           | ✦ shows some understanding of the problem’s mathematical concepts and principles  
✦ uses some correct mathematical terminology and notations  
✦ may contain major algorithmic or computational errors | The response demonstrates the following: |
| 1 | ♦ shows limited to no understanding of the problem's mathematical concepts and principles  
♦ may misuse or fail to use mathematical terminology and notations  
♦ attempts an answer | The response *may* demonstrate one of the following: |
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<tr>
<td>0</td>
<td>♦ no answer attempted</td>
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