

Criterion A: Knowledge and Understanding

| Achievement Level | Level Descriptor |
|-------------------|--|
| 0 | The student does not reach a standard described by any of the descriptors below. |
| 1-2 | The student generally makes appropriate deductions when solving simple problems in familiar contexts. |
| 3-4 | The student generally makes appropriate deductions when solving more complex problems in familiar contexts. |
| 5-6 | The student generally makes appropriate deductions when solving challenging problems in a variety of familiar contexts. |
| 7-8 | The student consistently makes appropriate deductions when solving challenging problems in a variety of contexts including unfamiliar situations . |

Criterion B: Investigating Patterns

| Achievement Level | Level Descriptor |
|-------------------|---|
| 0 | The student does not reach a standard described by any of the descriptors below. |
| 1-2 | The student applies, with some guidance , mathematical problem-solving techniques to recognize simple patterns. |
| 3-4 | The student applies mathematical problem-solving techniques to recognize patterns, and suggests relationships or general rules. |
| 5-6 | The student selects and applies mathematical problem-solving techniques to recognize patterns, describes them as relationships or general rules, and draws conclusions consistent with findings. |
| 7-8 | The student selects and applies mathematical problem-solving techniques to recognize patterns, describes them as relationships or general rules, draws the correct conclusions consistent with the correct findings, and provides justifications or a proof . |

Criterion C: Communication in Mathematics

| Achievement Level | Level Descriptor |
|-------------------|---|
| 0 | The student does not reach a standard described by any of the descriptors below. |
| 1-2 | The student shows basic use of mathematical language and/or forms of mathematical representation. The lines of reasoning are difficult to follow . |
| 3-4 | The student shows sufficient use of mathematical language and forms of mathematical representation. The lines of reasoning are clear though not always logical or complete . The student moves between different forms of representation with some |

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| | success. |
| 5-6 | <p>The student shows good use of mathematical language and forms of mathematical representation.</p> <p>The lines of reasoning are concise, logical and complete.</p> <p>The student moves effectively between different forms of representation.</p> |

Criterion D: Reflection in Mathematics

| Achievement Level | Level Descriptor |
|-------------------|--|
| 0 | The student does not reach a standard described by any of the descriptors below. |
| 1-2 | <p>The student attempts to explain whether his or her results make sense in the context of the problem.</p> <p>The student attempts to describe the importance of his or her findings in connection to real life where appropriate.</p> |
| 3-4 | <p>The student correctly but briefly explains whether his or her results make sense in the context of the problem.</p> <p>The student describes the importance of his or her findings in connection to real life where appropriate.</p> <p>The student attempts to justify the degree of accuracy of his or her results where appropriate.</p> |
| 5-6 | <p>The student critically explains whether his or her results make sense in the context of the problem.</p> <p>The student provides a detailed explanation of the importance of his or her findings in connection to real life where appropriate.</p> <p>The student justifies the degree of accuracy of his or her results where appropriate.</p> <p>The student suggests improvements to his or her method where appropriate.</p> |