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| **Step/Achievement** | **Does Not Meet Expectations** | **Minimally Meets Expectations** | **Satisfactory Meeting of Expectations** | **Excellent Meeting of Expectations** |
| **Define Problem** | Does not define problem. | Defines problem, but with minimal clarity. | Articulates problem well. | Articulates problem very well, making it clear what next steps are needed. |
| **Key Issues/Assumptions** | Does not identify any issues/assumptions or gives ones that are not helpful for solving problem. | Identifies some key issues/assumptions; misses some assumptions. | Identifies most of the key issues and assumptions made. | Key issues are clear. Assumptions and their impact on value of solution are also clarified. |
| **Math Model** | Major error in execution of math model leading to incorrect solution. | Arrives at a reasonable solution using appropriate methods, but explanation of steps is unclear/unorganized. | Arrives at a reasonable solution with appropriate methods and description of process is clear. | Finds reasonable solution through a clear set of steps; uses set of tools, such as graphing, to arrive at solution; description of process is clear and organized. |
| **Test and Validate** | Does not check solution to find that it is incorrect. | May do a check, but not one that would provide insight into limitations of solution. | Does some check to validate solution. | Engages in multiple approaches to solution to check its integrity and stability. |
| **Conclusions** | Missing/inconclusive discussion of results. | Provides brief conclusions with minimal insight. | Provides good insight into how the solution is appropriate and how it may be improved. | Discussion demonstrates a thorough understanding of the value of the solution as well as what further approaches may provide additional insight. |