A–7

Thinking General Scoring Rubric

Criteria	Level 1	Level 2	Level 3	Level 4
Apply the processes of inquiry and problem solving	applies the steps of an inquiry/problem solving process with significant assistance	 applies the steps of an inquiry/problem solving process with some assistance 	 applies the steps of an inquiry/problem solving process effectively 	 applies the steps of an inquiry/problem solving process effectively and considers extensions
Explore an inquiry or problem	explores a few aspects of the inquiry/problem with major prompts and gathers data that are related but inappropriate	 explores some aspects of the inquiry/problem with major prompts and gathers some data that are appropriate 	 explores the inquiry/ problem without assistance and gathers all data that are appropriate and significant 	 explores the inquiry/ problem very effectively and gathers data that are appropriate and significant, even considering the extreme cases
Formulate a hypothesis and/or logical argument	 formulates a hypothesis and/or argument that is related to a few aspects of the problem/inquiry 	 formulates a hypothesis and/or argument that is related to some aspects of the problem/inquiry 	 formulates a hypothesis and/or logical argument that is related to the significant aspects of the problem/inquiry 	 formulates a hypothesis and/or logical argument that is related to all aspects of the problem
Prepare a model to represent a mathematical problem/inquiry (e.g., charts, graphs)	prepares a model that partially represents the mathematical problem/ inquiry with assistance	 prepares a model that appropriately represents part of the mathematical problem/inquiry with some assistance 	 prepares a model that appropriately represents the mathematical problem/inquiry 	 prepares a model that comprehensively represents the mathematical problem/inquiry
Manipulate the data and transform the mathematical model	 selects appropriate tools with significant help and applies a few strategies that rarely lead to a solution 	 selects appropriate tools with some help and applies some strategies that sometimes give answers of some accuracy 	 selects appropriate tools and applies strategies that almost always give accurate answers 	 selects the most appropriate tools and applies strategies that always lead to correct and elegant solutions
Make inferences, draw conclusions, and make justifications	explanations have a very limited relationship to the inquiry/problem solving process	 explanations have some relationship to the inquiry/ problem solving process 	 explanations are consistently related to the inquiry/problem solving process 	 explanations are directly related to the inquiry/ problem solving process and are clear and precise

Comments: