

## Volunteer Core Quantitative and Logical Reasoning (QR) Rubric for Student Assessment

QR Outcome 1	1- Ineffective	2-Adequate	3-Effective	4-Outstanding
<i>Students will demonstrate the ability to identify those aspects of arguments and claims that rely on quantitative evidence and on mathematical or logical reasoning.</i>	Missing or incomplete work; doesn't show any connection between the original problem or argument and the work provided.	Work shows connections to the given problem or argument and takes at least one correct step towards a solution or re-statement of the problem.	Work draws from the given information and takes multiple correct steps towards the solution or re-statement of the problem. May still show several small misunderstandings, but nothing critical.	Clear work that connects the given problem or argument with a solution or effective restatement of the original statement. The work has multiple steps that show mastery of mathematical or logical reasoning.
QR Outcome 2	1- Ineffective	2-Adequate	3-Effective	4-Outstanding
<i>Students will demonstrate the ability to evaluate the appropriateness of conclusions drawn from quantitative evidence and mathematical or logical reasoning techniques.</i>	Missing or incomplete or completely unsupported argument. No connection shown between given information and the results.	Connections between the parts of the problem are provided but they are not necessarily complete or presented with the expected precise language. The results are evaluated correctly or at least consistently with the support given.	Work or argument uses the given information correctly and makes the proper conclusions based on that data. The evaluation is correct, but may still show some small errors in reasoning or language.	Work evaluates the situation correctly, using proper language and methods, and provides proper support for any arguments or conclusions.
QR Outcome 3	1- Ineffective	2-Adequate	3-Effective	4-Outstanding
<i>Students will demonstrate the ability to formulate and solve problems that rely on mathematical or logical reasoning.</i>	Missing or incomplete or completely unsupported answer (e.g. Missing or incomplete solution)	Solution and some support are provided, but there is no precision in the language or statements used, no quantitative elements in the support, or the solution does not logically follow from the support. (e.g. Solution given, but major errors with respect to the solution key.)	Solutions and support are provided and correct, but there are misuses of terminology or data, or there are some missing elements in the support. (e.g. Correct and matches most but not all of the solution key; differences are not significant.)	Solution is stated precisely using appropriate quantitative or logical notation and terminology, and is supported correctly using specific data references from the problem. (e.g. Match the wording and elements of the solution key.)