Mathematical Analysis

Learning Outcome 1: Ability to establish connections between real world phenomena and mathematical ideas

Learning Outcome	4 Thorough	3 Adequate	2 Limited	1 Weak	Unscorable
Ability to establish connections between real world phenomena and mathematical ideas.	Interprets relevant real world info into an accurate and appropriate mathematical portrayal Calculations are successful and sufficiently comprehensive to solve the problem Calculations and interpretation of solution are presented elegantly (clear, concise, real-world meaning, etc.) Answers are labeled with appropriate units	Interprets relevant real world info into a mostly appropriate mathematical portrayal Calculations are mostly successful and sufficiently comprehensive to solve the problem Some interpretation of solution/real world meaning is present and is mostly correct Answers are usually labeled with appropriate units	Interprets real world info into a mathematical portrayal that is only partially appropriate or accurate Calculations are partially successful and/or represent only a portion of what is required to comprehensively solve the problem Answers are sometimes labeled with appropriate units	Mathematical portrayal of real world info is mostly inappropriate or inaccurate Calculations are generally unsuccessful and are not comprehensive Answers are often labeled inappropriately or units are not specified	Evidence does not measure learning outcome

<u>Learning Outcome</u> 2: Ability to solve problems by employing mathematical reasoning skills, using mathematical equations, or analyzing quantitative data

Learning Outcome	4 Thorough	3 Adequate	2 Limited	1 Weak	Unscorable
Ability to solve problems by employing mathematical reasoning skills, using mathematical equations, or analyzing quantitative data.	Solves problems correctly by employing mathematical reasoning skills, using mathematical equations, or analyzing quantitative data Suggested % 85%-100% of items scored	Mostly solves problems correctly by employing mathematical reasoning skills, using mathematical equations, or analyzing quantitative data Suggested % 70%-84% of items scored	Solves some problems correctly by employing mathematical reasoning skills, using mathematical equations, or analyzing quantitative data Suggested % 60%-69% of items scored	Solves few problems correctly Suggested % less than 60% of items scored	Evidence does not measure learning outcome