

Grading Rubric for Mathematics

	'A' Level	'B' Level	'C' Level	Needs Improvement
Understanding	The solution shows a deep understanding of the problem including the appropriate mathematical concepts and the information necessary for its solution.	The solution shows that the student has a broad understanding of the problem and the major concepts necessary for its solution.	The solution is not complete indicating that parts of the problem are not understood.	There is no solution or the solution has no relationship to the task.
Mathematical Components	The solution completely addresses all mathematical components presented in the task and appropriately applies the mathematics to the situation.	The solution addresses all of the components presented in the task.	The solution addresses most, but not all of the mathematical components presented in the task.	The solution addresses none of the mathematical components presented in the task.
Mathematical Concepts	The solution puts to use the underlying mathematical concepts upon which the task is designed.			Inappropriate concepts are applied and/or procedures are used.
Strategy	Uses a very efficient and sophisticated strategy leading directly to a solution.	Uses a strategy that leads to a solution of the problem.	Uses a strategy that is partially useful, leading some way toward a solution, but not to a full solution of the problem.	No evidence of a strategy or procedure or uses a strategy that does not help solve the problem.
Mathematical Reasoning	Employs refined complex reasoning.	Uses effective mathematical reasoning.	Some evidence of mathematical reasoning.	Not evidence of mathematical reasoning.
Mathematical Procedures	Applies procedures accurately to correctly solve the problem and verify the results.	Mathematical procedures used.	Could not completely carry out mathematical procedures. However, most procedures were done correctly.	There were so many errors in mathematical procedures that the problem could not be resolved.
Correct Solution	Verifies and/or evaluates the reasonableness of the solution.	All parts are correct and a correct answer is achieved.	Many parts correct, but a correct answer is not achieved.	Only some parts correct.
Observations and Connections	Makes mathematically relevant observations and/or connections.			
Explanations	There is a clear, effective explanation detailing how the problem is solved. All of the steps are included so that the reader does not need to infer how and why decisions were made.	There is a clear explanation.	There is an incomplete explanation. It may not be clearly presented.	There is no explanation of the solution, the explanation cannot be understood, it is unrelated to the problem or it is illegible.
Mathematical Representation	Mathematical representation is actively used as a means of communicating ideas related to the solution of the problem.	There is appropriate use of accurate mathematical representation.	There is some use of appropriate mathematical representation.	There is no use or inappropriate use of mathematical representations (e.g. figures, diagrams, graphs, tables, etc.).

Terminology and Notation	There is precise and appropriate use of mathematical terminology and notation.	There is effective use of mathematical terminology and notation.	There is some use of mathematical terminology and notation appropriate of the problem.	There is no use , or mostly inappropriate use, of mathematical terminology and notation.
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