

Communication

Communication in mathematics can take several different forms. Communication can be as straightforward as using correct mathematical vocabulary, symbols, and conventions. It can also be reading and interpreting mathematical forms such as graphs and charts. Communication of mathematics is also displayed as students present solutions to complex problems. For instance, a full written solution should combine both narrative and mathematical forms (graphs, equations, diagrams, and so on) to clearly present and support the conclusion to the problem.

	Level 1	Level 2	Level 3	Level 4
Correct use of mathematical symbols, labels and conventions	Few mathematical conventions are used.	Some mathematical conventions are used correctly.	Most mathematical conventions are used correctly.	Mathematical conventions are used correctly.
Ability to read and interpret mathematics	The student gathers limited accurate information from mathematical language or forms such as charts or graphs.	The student gathers some information from mathematical language or forms such as charts or graphs but has difficulty interpreting it.	The student gathers sufficient information from mathematical language or forms such as charts or graphs and interprets it correctly.	The student gathers complex information from mathematical language or forms such as charts or graphs and interprets it fully.
Integration of narrative and Mathematical Forms (graphs, charts, diagrams)	Either mathematical or narrative form is present, but not both.	Both mathematical and narrative forms are present, but the forms are not integrated.	Mathematical and narrative forms are present and integrated.	A variety of mathematical forms and narrative are present, integrated and well chosen.
Appropriate use of mathematical vocabulary	Few mathematical words are used correctly.	Some mathematical words are used correctly.	Most mathematical words are used correctly.	Mathematical words are used correctly.
Degree of clarity in explanations and justifications	Explanations and justifications lack clarity.	Explanations and justifications are understandable but lack clarity.	Explanations and justifications are clear.	Explanations and justifications are clear and thorough.