

Learning Outcome 4: Students will solve quantitative problems and apply quantitative reasoning skills in a variety of contexts.

Quantitative (Q)

Capability	1. Emerging	2. Developing	3. Proficient	4. Advanced
A. Students will correctly produce foundational quantitative, algorithmic, or data-driven methods to solve problems.	Does not produce appropriate algorithms, formulas, or data-analysis methods. Work is largely incorrect, incomplete, or shows little understanding of the underlying process.	Attempts to produce algorithms, formulas, or data-analysis methods, but with noticeable conceptual or procedural errors. Steps may be incomplete, poorly organized, or inconsistently applied.	Correctly produces appropriate algorithms, formulas, or data-analysis methods with only minor errors that do not significantly affect results. Work is mostly complete and follows a logical process.	Correctly produces appropriate algorithms, formulas, or data-analysis methods. Work is complete, logically organized, and clearly justified. Calculations and procedures are accurate, and results are checked or validated when appropriate.
B. Students will correctly interpret quantitative information presented in graphs, tables, and other visual representations.	Misinterprets or cannot meaningfully interpret quantitative information. Conclusions are incorrect, unsupported, or unrelated to the data shown.	Partially interprets quantitative information but misunderstands key features. Conclusions may be weak, incomplete, or only loosely supported by the information presented.	Correctly interprets most quantitative information, with minor inaccuracies or omissions that do not substantially alter conclusions.	Accurately and thoroughly interpret quantitative information. Draws well-supported and contextually appropriate conclusions that are fully consistent with the information presented.
C. Students will correctly communicate solutions.	Communication of solutions is unclear, incorrect, or largely absent. Explanations lack coherence, appropriate terminology, or necessary detail to convey understanding.	Communicates solutions with limited clarity or accuracy. Explanations may be incomplete, poorly organized, or use incorrect or inconsistent terminology, notation, or units.	Communicates solutions clearly and accurately, with appropriate terminology and notation. Minor issues in organization, clarity, or precision may be present but do not obscure meaning.	Communicates solutions clearly and accurately, with appropriate terminology and notation. Explanations are well-organized and precise.