

Quantitative Reasoning Competency Outcomes

Developed by the Quantitative Reasoning Faculty Panel

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A foundational experience in quantitative reasoning will provide a rigorous mathematical curriculum applied to real world problem solving. The outcomes should deepen, extend, or be distinct from high school Core 40 mathematics competencies. Upon completion, students will be able to:

Interpretation

Interpret information that has been presented in mathematical form (e.g. with functions, equations, graphs, diagrams, tables, words, geometric figures)

Representation

Represent information/data in mathematical form as appropriate (e.g. with functions, equations, graphs, diagrams, tables, words, geometric figures)

Mathematical procedures

Demonstrate skill in carrying out mathematical (e.g. algebraic, geometric, logical, statistical) procedures flexibly, accurately, and efficiently to solve problems

Critical thinking

Analyze mathematical arguments, determining whether stated conclusions can be inferred

Analysis

Communicate which assumptions have been made in the solution process

Analyze mathematical results in order to determine the reasonableness of the solution

Cite the limitations of the process where applicable

Communication

Clearly explain the representation, solution, and interpretation of the mathematical problem