

G-PAC: Quantitative Reasoning Rubric

	1	2	3	4	Score/ Level
Represent mathematical information symbolically, visually, numerically, and verbally	Partially completes conversion of information. Resulting mathematical portrayal is inappropriate or inaccurate.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	
Articulate precise mathematical definitions and propositions and draw inferences from them (or makes judgments or draws appropriate conclusions)	Mathematical definitions and propositions are imprecise and inferences are tentative and very elementary.	Mathematical definitions are somewhat precise, and inferences are plausible but lack inspiration or nuance.	Mathematical definitions are precise and inferences are reasonable and appropriate.	Mathematical definitions are precise and inferences are insightful and thoughtful.	
Use algebraic, geometric, or statistical calculations to solve problems	Calculations are attempted but are both unsuccessful and are not comprehensive.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.).	
Interpret and explain information represented in mathematical forms (e.g., graphs, equations, diagrams, tables)	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means.	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units.	Provides accurate explanations of information presented in mathematical forms.	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information.	