

Mathematics Interim Comprehensive Assessment (ICA) Blueprint

as of May 2023

Mathematics Grade 3

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items
1. Concepts and Procedures	Priority Cluster	B. Understand properties of multiplication and the relationship between multiplication and division.	1	6	0	20
		C. Multiply and divide within 100.	1			
		I. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	1, 2			
		G. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	1, 2			
		D. Solve Problems involving the four operations, and identify and explain patterns in arithmetic.	2	6		
		F. Develop understanding of fractions as numbers.	1, 2			
	Supporting Cluster	A. Represent and solve problems involving multiplication and division.	1, 2	3		
		E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	1	4		
		J. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	1			
		K. Reason with shapes and their attributes.	1, 2			
		H. Represent and interpret data.	2, 3	1		

Mathematics Grade 3

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	2	10	
		B. Select and use tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	2		10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2			

Mathematics Grade 4

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items
1. Concepts and Procedures	Priority Cluster	A. Use the four operations with whole numbers to solve problems.	1, 2	9	0	20
		E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	1, 2			
		F. Extend understanding of fraction equivalence and ordering.	1, 2			
		G. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	1, 2	3		
		D. Generalize place value understanding for multi-digit whole numbers.	1, 2	2		
		H. Understand decimal notation for fractions, and compare decimal fractions	1, 2	1		
	Supporting Cluster	I. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	1, 2	3		
		K. Geometric measurement: understand concepts of angle and measure angles.	1, 2			
		B. Gain familiarity with factors and multiples.	1, 2	1		
		C. Generate and analyze patterns.	2, 3			
J. Represent and interpret data.	1, 2	1				
L. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	1, 2					

Mathematics Grade 4

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	2	10	
		B. Select and use tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	2		10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2			

Mathematics Grade 5

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items
1. Concepts and Procedures	Priority Cluster	E. Use equivalent fractions as a strategy to add and subtract fractions.	1, 2	6	0	20
		I. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	1, 2			
		F. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	1, 2	5		
		D. Perform operations with multi-digit whole numbers and with decimals to hundredths.	1, 2	4		
		C. Understand the place value system.	1, 2			
	Supporting Cluster	J. Graph points on the coordinate plane to solve real-world and mathematical problems	1	3		
		K. Classify two-dimensional figures into categories based on their properties.	2			
		A. Write and interpret numerical expressions.	1	2		
		B. Analyze patterns and relationships.	2			
		G. Convert like measurement units within a given measurement system.	1			
H. Represent and interpret data.	1, 2					

Mathematics Grade 5

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	2	10	
		B. Select and use tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	2		10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2			

Mathematics Grade 6

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items
1. Concepts and Procedures	Priority Cluster	E. Apply and extend previous understandings of arithmetic to algebraic expressions.	1	6	0	19
		F. Reason about and solve one-variable equations and inequalities.	1, 2			
		A. Understand ratio concepts and use ratio reasoning to solve problems.	1, 2			
		G. Represent and analyze quantitative relationships between dependent and independent variables.	2	2		
		B. Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	1, 2			
		D. Apply and extend previous understandings of numbers to the system of rational numbers.	1, 2	2		
	Supporting Cluster	C. Compute fluently with multi-digit numbers and find common factors and multiples.	1, 2	5		
		H. Solve real-world and mathematical problems involving area, surface area, and volume.	1, 2			
		I. Develop understanding of statistical variability.	2			
		J. Summarize and describe distributions.	1, 2			

Mathematics Grade 6

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	2	10	
		B. Select and use tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	1		9
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2			

Mathematics Grade 7

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items
1. Concepts and Procedures	Priority Cluster	A. Analyze proportional relationships and use them to solve real-world and mathematical problems.	2	9	0	19
		D. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	1, 2			
		B. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	1, 2	5		
		C. Use properties of operations to generate equivalent expressions.	1, 2			
	Supporting Cluster	E. Draw, construct, and describe geometrical figures and describe the relationship between them.	1, 2	3		
		F. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	1, 2			
		G. Use random sampling to draw inferences about a population.	1, 2			
		H. Draw informal comparative inferences about two populations.	2	2		
		I. Investigate chance processes and develop, use, and evaluate probability models.	1, 2			

Mathematics Grade 7

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	2	11	
		B. Select and use tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	3		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	1		9
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2			

Mathematics Grade 8

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items
1. Concepts and Procedures	Priority Cluster	C. Understand the connections between proportional relationships, lines, and linear equations.	1, 2	6	0	20
		D. Analyze and solve linear equations and pairs of simultaneous linear equations.	1, 2			
		B. Work with radicals and integer exponents.	1, 2			
		E. Define, evaluate, and compare functions.	1, 2			
		G. Understand congruence and similarity using physical models, transparencies, or geometry software.	1, 2			
		F. Use functions to model relationships between quantities.	1, 2			
		H. Understand and apply the Pythagorean Theorem.	1, 2			
	Supporting Cluster	A. Know that there are numbers that are not rational, and approximate them by rational numbers.	1, 2	5		
		I. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	1, 2			
		J. Investigate patterns of association in bivariate data.	1, 2			

Mathematics Grade 8

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	2	10	
		B. Select and use tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	2		10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2			

Mathematics Grade 9

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items
1. Concepts and Procedures	Priority Cluster	D. Interpret the structure of expressions.	1, 2	2	0	21
		E. Write expressions in equivalent forms to solve problems.	1, 2			
		F. Perform arithmetic operations on polynomials.	2	1		
		G. Create equations that describe numbers or relationships.	1, 2	5		
		H. Understand solving equations as a process of reasoning and explain the reasoning.	1, 2			
		I. Solve equations and inequalities in one variable.	1, 2			
		J. Represent and solve equations and inequalities graphically.	1, 2	2		
		K. Understand the concept of a function and use function notation.	1, 2	2		
		L. Interpret functions that arise in applications in terms of a context.	1, 2	3		
		M. Analyze functions using different representations.	1, 2, 3			
	N. Build a function that models a relationship between two quantities.	2				
	Supporting Cluster	O. Define trigonometric ratios and solve problems involving right triangles.	1, 2	2		
		P. Summarize, represent, and interpret data on a single count or measurement variable.	2	2		
		A. Extend the properties of exponents to rational exponents.	1, 2	1		
		B. Use properties of rational and irrational numbers.	1, 2			
C. Reason quantitatively and use units to solve problems.		1, 2	1			

Mathematics Grade 9

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1	9	
		B. Select and use tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	2		10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2			

Mathematics Grade 10

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items
1. Concepts and Procedures	Priority Cluster	D. Interpret the structure of expressions.	1, 2	2	0	21
		E. Write expressions in equivalent forms to solve problems.	1, 2			
		F. Perform arithmetic operations on polynomials.	2	1		
		G. Create equations that describe numbers or relationships.	1, 2	5		
		H. Understand solving equations as a process of reasoning and explain the reasoning.	1, 2			
		I. Solve equations and inequalities in one variable.	1, 2			
		J. Represent and solve equations and inequalities graphically.	1, 2	2		
		K. Understand the concept of a function and use function notation.	1, 2	2		
		L. Interpret functions that arise in applications in terms of a context.	1, 2	3		
		M. Analyze functions using different representations.	1, 2, 3			
	N. Build a function that models a relationship between two quantities.	2				
	Supporting Cluster	O. Define trigonometric ratios and solve problems involving right triangles.	1, 2	2		
		P. Summarize, represent, and interpret data on a single count or measurement variable.	2	2		
		A. Extend the properties of exponents to rational exponents.	1, 2	1		
		B. Use properties of rational and irrational numbers.	1, 2			
C. Reason quantitatively and use units to solve problems.		1, 2	1			

Mathematics Grade 10

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1	9	
		B. Select and use tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	2		10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2			

Mathematics Grade 11

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items
1. Concepts and Procedures	Priority Cluster	D. Interpret the structure of expressions.	1, 2	2	0	22
		E. Write expressions in equivalent forms to solve problems.	1, 2			
		F. Perform arithmetic operations on polynomials.	2	1		
		G. Create equations that describe numbers or relationships.	1, 2	5		
		H. Understand solving equations as a process of reasoning and explain the reasoning.	1, 2			
		I. Solve equations and inequalities in one variable.	1, 2			
		J. Represent and solve equations and inequalities graphically.	1, 2	2		
		K. Understand the concept of a function and use function notation.	1, 2	2		
		L. Interpret functions that arise in applications in terms of a context.	1, 2	4		
		M. Analyze functions using different representations.	1, 2, 3			
	N. Build a function that models a relationship between two quantities.	2				
	Supporting Cluster	O. Define trigonometric ratios and solve problems involving right triangles.	1, 2	2		
		P. Summarize, represent, and interpret data on a single count or measurement variable.	2	2		
		A. Extend the properties of exponents to rational exponents.	1, 2	1		
		B. Use properties of rational and irrational numbers.	1, 2			
C. Reason quantitatively and use units to solve problems.		1, 2	1			

Mathematics Grade 11

Claim	Content Category	Assessment Targets	DOK	Non-PT Items	PT Items	Total Items	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1	10	
		B. Select and use tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	3		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	2		10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2			