Georgia Milestones Assessment System
Grade 7 Mathematics
ASSESSMENT BLUEPRINT

Claims, Targets, and Content Standards

Claims and Targets	Content Standards Assessed	Approximate # of Points
Numerical Reasoning		**12**
Solve relevant, mathematical problems, including multi-step problems, involving the four operations with rational numbers and quantities in any form (integers, percentages, fractions, and decimal numbers).	7.NR.1	12
Patterning & Algebraic Reasoning		**28**
Use properties of operations, generate equivalent expressions and interpret the expressions to explain relevant situations.	7.PAR.2	12
Represent authentic situations using equations and inequalities with variables; solve equations and inequalities symbolically, using the properties of equality.	7.PAR.3	
Recognize proportional relationships in relevant, mathematical problems; represent, solve, and explain these relationships with tables, graphs, and equations.	7.PAR.4	16
Geometric & Spatial Reasoning		**9**
Solve practical problems involving angle measurement, circles, area of circles, surface area of prisms and cylinders, and volume of cylinders and prisms composed of cubes and right prisms.	7.GSR.5	9
Probability Reasoning		**9**
Using mathematical reasoning, investigate chance processes and develop, evaluate, and use probability models to find probabilities of simple events presented in authentic situations.	7.PR.6	9
	Total	**58**

Depth of Knowledge

Depth of Knowledge (DOK) is measured on a scale of 1 to 4 and refers to the level of cognitive demand (different kinds of thinking) required to complete an assessment item. The following table shows the expectations of the four DOK levels on the Grade 7 Mathematics exam.

Depth of Knowledge	Approximate # of Points	Approximate % of Test
Level 1	12 to 17	20% to 30%
Level 2	29 to 35	50% to 60%
Level 3	9 to 15	15% to 25%
Level 4	N/A	N/A
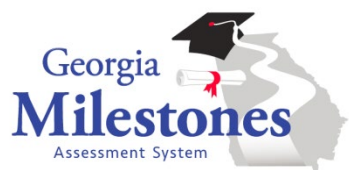
Assessment Design

Item Type	# of Items	# of Points
1-point Selected-Response and Technology-Enhanced[1, 2]	42	42
2-point Technology-Enhanced[1]	8	16
Field Test Items[3]	5	0
Total[4]	**55**	**58**

[1] **Technology-Enhanced:** Possible variants of the technology-enhanced item types used for Mathematics include multiple-part selected-response, multiple-select, drag-and-drop, drop-down, graphing, and keypad-input.

[2] **1-point Selected-Response and Technology-Enhanced Items:** The ratio of selected-response to technology-enhanced items may vary. The target range of 1-point technology-enhanced items is 0 to 5.

[3] **Field Test Items:** Field Test items may include 1-point selected-response, 1-point technology-enhanced, and 2-point technology-enhanced items.

[4] **Total:** Of the 55 items, 50 contribute to the student's Mathematics score.

Mathematical Practices

Mathematical practices describe how students should engage with the mathematics content for their grade level. Developing these habits of mind builds students' capacity to become mathematical thinkers. These practices are embedded within items aligned to the mathematics content standards but are not reported as a separate reporting category.

Mathematical Practice	Expectation
Make sense of problems and persevere in solving them.	7.MP.1
Reason abstractly and quantitatively.	7.MP.2
Construct viable arguments and critique the reasoning of others.	7.MP.3
Model with mathematics.	7.MP.4
Use appropriate tools strategically.	7.MP.5
Attend to precision.	7.MP.6
Look for and make use of structure.	7.MP.7
Look for and express regularity in repeated reasoning.	7.MP.8