MCAP Grade 7 Mathematics

High Level Blueprint

This High-Level Blueprint describes the structure and content of the Maryland Comprehensive Assessment Program (MCAP) Grade 7 Mathematics Assessment by subclaim.

Content Subclaim

The MCAP Grade 7 assessment contains 23 operational items designed to elicit evidence to support the Content Subclaim. Content Subclaim items are worth 1-point, are machine scored, and align to the Grade 7 evidence statements. Refer to the MCAP Grade 7 Evidence Statement document for more information on the content evidence statements.

Domain	Cluster		Number of Items
Ratios and Proportional Relationships	7.RP.A	Analyze proportional relationships and use them to solve real-world and mathematical problems.	8
The Number System	7.NS.A	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	4
Expressions and Equations	7.EE.A	Use properties of operations to generate equivalent expressions.	5
	7.EE.B	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	
Geometry	7.G.A	Draw, construct, and describe geometric figures and describe the relationships between them.	3
	7.G.B	Solve real-world and mathematical problems involving angle measure, area, surface area, and volume.	
Statistics and Probability	7.SP.A	Use random sampling to draw inferences about a population.	3
	7.SP.B	Draw informal comparative inferences about two populations.	
	7.SP.C	Investigate chance processes and develop, use, and evaluate probability models.	
		Total Number of Operational Items	**23**
		Total Number of Points	**23**

Reasoning Subclaim

The MCAP Grade 7 assessments include 6 operational items that elicit evidence to support the Reasoning Subclaim. Each assessment includes machine-scored and human-scored (constructed response) reasoning items. The content focus for all reasoning items is based on the content clusters. Refer to the MCAP Grade 7 Evidence Statements document for more information on the reasoning evidence statements.

Evidence Statements		Number of Machine-Scored Items (1 point)	Number of Constructed Response Items (3 or 4 points)
7.R.1 7.R.2 7.R.3	Reasoning with Ratios and Proportional Relationships Reasoning with Number Systems Reasoning with Expressions and Equations	4	1 3-point item and 1 4-point item
	Total Number of Points	**4**	**7**

Modeling Subclaim

The MCAP Grade 7 assessments include 6 operational items that elicit evidence to support the Modeling Subclaim. Each assessment includes machine-scored and human-scored (constructed response) modeling items. Modeling items may address any of the Grade 7 evidence statements. Refer to the MCAP Grade 7 Evidence Statement document for more information on the modeling evidence statements.

Evidence Statements		Number of Machine-Scored Items (1 point)	Number of Constructed Response Items (3 or 4 points)
7.M.1 7. M.1a 7.M.1b 7.M.1c 7.M.1d 7.M.1e	Choose and produce appropriate mathematics to model quantities and mathematical relationships in order to analyze situations, make predictions, solve multi-step problems, and draw conclusions. Given a real-world situation, identify the problem that needs to be solved, make necessary assumptions, and identify important information. Given real-world situation, formulate a mathematical representation of the problem. Given a real-world situation, use mathematical models to compute and draw conclusions. Given a real-world situation, interpret what a solution means within the context of the situation. Given a real-world situation, evaluate and/or validate a partial or complete solution.	4	1 3-point item and 1 4-point item
	Total Number of Points	**4**	**7**