Ohio Graduation Test (OGT) Blueprint for Mathematics						
Standard		Multiple- Choice (1 point)	Short-Answer (2 points)	Extended- Response (4 points)	Total	
Number,	Items	4 – 7	0-2*	0 or 1*	5 – 8	
Number Sense and Operations	Points	4 – 7	0 or 2 or 4	0 or 4	8 – 9	
Measurement	Items	4 or 6	0 or 1*	0 or 1*	5 or 7	
	Points	4 or 6	0 or 2	0 or 4	8	
Geometry and Spatial Sense	Items	4 or 6	0 or 1*	0 or 1*	5 or 7	
	Points	4 or 6	0 or 2	0 or 4	8	
Patterns, Functions, and Algebra	Items Points	4 – 9 4 – 9	1 or 2 2 or 4	0 or 1 0 or 4	6 – 10 10 – 11	
Data Analysis and Probability	Items	4 – 9	1 or 2	0 or 1	6 – 10	
	Points	4 – 9	2 or 4	0 or 4	10 - 11	
Total Scored	Items	32	5	1	38	
	Points	32	10	4	46	

*A test form will not include both a short-answer and extended response item for these standards.

Item Distribution

Items are distributed among three item formats on each form of the test according to the following guidelines:

- Each of the five standards is assessed by multiple-choice items and at least one constructed-response item on every form of the test.
- Each standard is assessed by at least one, but not more than two, extended-response items over the course of two academic years (six operational forms).
- Each operational form will typically include six Field Test items.

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Reporting of Results

Results are reported using a scaled score for overall achievement as well as for the number of points received for each of the following standards:

- Number, Number Sense and Operations
- Measurement
- Geometry and Spatial Sense
- Patterns, Functions, and Algebra
- Data Analysis and Probability

Since the Mathematics Process standard is dependent on the other standards for content, the Mathematics Process standard is embedded within each of the other standards and, therefore, is not reported. The Mathematics Process standard is identified with items as they are developed and as test forms are constructed with attention to appropriate balance among benchmarks.

Use of Tools during Test Administration: Calculator and Mathematics Reference Sheet

Scientific calculators are provided to districts for students to use while taking the Mathematics test. Only the state-provided calculators can be used during testing. Students are not allowed to use any other calculator. Calculators are distributed in sufficient quantities prior to test administration to allow ample time for students to become familiar with the calculator and its use before testing. Support materials are also provided to familiarize students with the calculator functions and operation.

A Mathematics Reference Sheet (or formula sheet) is included in the test materials. Examples of information provided are the quadratic formula, trigonometric ratios, and common area and volume formulas for basic geometric figures and objects. A sample of the Mathematics Reference Sheet is provided in the practice test materials.

Additional Considerations for Item Development

Careful attention is given in the design of the items and tasks to the level of mathematical understanding or cognitive demand that may be asked of the student when responding to items. Levels of complexity ensure that items, tasks, and test forms assess an appropriate balance of content as well as a variety of ways of knowing and doing mathematics.

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The levels of complexity categories for item and test form development are aligned with the Levels of Complexity in the Mathematics 2005 Framework for the National Assessment of Educational Progress (NAEP). Each level of complexity describes the mathematical expectations of an item. A brief description of each level is presented below.

Item Type	Characteristics	Proportion of Assessment (Points)
Low Complexity	Items rely heavily on recall and recognition of facts and definitions or carry out a specified, routine procedure.	25 - 35%
Moderate Complexity	Items require interpretation of a problem or situation and use informal reasoning and problem-solving methods.	40 - 50%
High Complexity	Items require significant analysis and reasoning including abstract and sophisticated thinking.	15 – 25%