Grade 3 Mathematics Benchmarks Coverage

Reporting Category	Benchmark Assessed	% of Test
Number Sense and Additive Reasoning	MA.3.NSO.1.1	23-29%
	MA.3.NSO.1.2	
	MA.3.NSO.1.3	
	MA.3.NSO.1.4	
	MA.3.NSO.2.1	
	MA.3.AR.1.2	
	MA.3.AR.3.1	
	MA.3.AR.3.3	
Number Sense and Multiplicative Reasoning	MA.3.NSO.2.3	23-29%
	MA.3.NSO.2.4 Also Assesses MA.3.NSO.2.2	
	MA.3.AR.1.1	
	MA.3.AR.2.2	
	MA.3.AR.2.3 Also Assesses MA.3.AR.2.1	
	MA.3.AR.3.2	
	MA.3.GR.2.1	
	MA.3.GR.2.2	
Fractional Reasoning	MA.3.FR.1.1	23-29%
	MA.3.FR.1.2	
	MA.3.FR.1.3	
	MA.3.FR.2.1	
	MA.3.FR.2.2	
Geometric Reasoning, Measurement, and Data Analysis and Probability	MA.3.GR.1.1	23-29%
	MA.3.GR.1.2	
	MA.3.GR.1.3	
	MA.3.GR.2.3	
	MA.3.GR.2.4	
	MA.3.M.1.1	
	MA.3.M.1.2	
	MA.3.M.2.1	
	MA.3.M.2.2	
	MA.3.DP.1.2 Also Assesses MA.3.DP.1.1	
Total Number of Items		35-40

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Grade 4 Mathematics Benchmarks Coverage

Reporting Category	Benchmark	% of Test
Number Sense and Operations with Whole Numbers	MA.4.NSO.1.1	31-37%
	MA.4.NSO.1.2	
	MA.4.NSO.1.3	
	MA.4.NSO.1.4	
	MA.4.NSO.1.5	
	MA.4.NSO.2.3 Also Assesses MA.4.NSO.2.2 Also Assesses MA.4.NSO.2.1	
	MA.4.NSO.2.4 Also Assesses MA.4.NSO.2.1	
	MA.4.NSO.2.5	
	MA.4.AR.1.1	
	MA.4.AR.2.1	
	MA.4.AR.2.2	
	MA.4.AR.3.1	
	MA.4.AR.3.2	
Number Sense and Operations with Fractions and Decimals	MA.4.NSO.2.6	31-37%
	MA.4.FR.1.1	
	MA.4.FR.1.2	
	MA.4.FR.1.3	
	MA.4.FR.1.4	
	MA.4.FR.2.1	
	MA.4.FR.2.2	
	MA.4.FR.2.3	
	MA.4.AR.1.2	
	MA.4.AR.1.3 Also Assesses MA.4.FR.2.4	
	MA.4.M.2.2 Also Assesses MA.4.NSO.2.7	
Geometric Reasoning, Measurement, and Data Analysis and Probability	MA.4.GR.1.1	31-37%
	MA.4.GR.1.2	
	MA.4.GR.1.3	
	MA.4.GR.2.1	
	MA.4.GR.2.2	
	MA.4.M.1.1	
	MA.4.M.1.2	
	MA.4.M.2.1	
	MA.4.DP.1.1	
	MA.4.DP.1.2	
	MA.4.DP.1.3	
Total Number of Items		35-40

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Grade 5 Mathematics Benchmark Coverage

Reporting Category	Benchmark	% of Test
Number Sense and Operations with Whole Numbers	MA.5.NSO.1.1	23-29%
	MA.5.NSO.1.2	
	MA.5.NSO.1.3	
	MA.5.NSO.1.4	
	MA.5.NSO.1.5	
	MA.5.NSO.2.1	
	MA.5.NSO.2.2	
Number Sense and Operations with Fractions and Decimals	MA.5.NSO.2.3	23-29%
	MA.5.NSO.2.5 Also Assesses MA.5.NSO.2.4	
	MA.5.FR.1.1	
	MA.5.FR.2.1	
	MA.5.FR.2.2	
	MA.5.FR.2.3	
	MA.5.FR.2.4	
	MA.5.AR.1.2	
	MA.5.AR.1.3	
	MA.5.M.2.1	
Algebraic Reasoning	MA.5.AR.1.1	23-29%
	MA.5.AR.2.1	
	MA.5.AR.2.2	
	MA.5.AR.2.3	
	MA.5.AR.2.4	
	MA.5.AR.3.1	
	MA.5.AR.3.2	
Geometric Reasoning, Measurement, and Data Analysis and Probability	MA.5.GR.1.1	23-29%
	MA.5.GR.1.2	
	MA.5.GR.2.1	
	MA.5.GR.3.1	
	MA.5.GR.3.2	
	MA.5.GR.3.3	
	MA.5.GR.4.1	
	MA.5.GR.4.2	
	MA.5.DP.1.1	
	MA.5.DP.1.2	
	MA.5.M.1.1	
Total Number of Items		35-40

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Grade 6 Mathematics Benchmark Coverage

Reporting Category	Benchmark	Calculator	% of Test
Number Sense and Operations	MA.6.NSO.1.1	CL	33-42%
	MA.6.NSO.1.2		
	MA.6.NSO.1.3		
	MA.6.NSO.1.4		
	MA.6.NSO.2.1		
	MA.6.NSO.2.2		
	MA.6.NSO.2.3		
	MA.6.NSO.3.1		
	MA.6.NSO.3.2		
	MA.6.NSO.3.3		
	MA.6.NSO.3.4		
	MA.6.NSO.3.5		
	MA.6.NSO.4.1		
	MA.6.NSO.4.2		
Algebraic Reasoning	MA.6.AR.1.1		25-36%
	MA.6.AR.1.2		
	MA.6.AR.1.3		
	MA.6.AR.1.4		
	MA.6.AR.2.1		
	MA.6.AR.2.2		
	MA.6.AR.2.3		
	MA.6.AR.2.4		
	MA.6.AR.3.1		
	MA.6.AR.3.2		
	MA.6.AR.3.3		
	MA.6.AR.3.4		
	MA.6.AR.3.5		
Geometric Reasoning, Data Analysis, and Probability	MA.6.GR.1.1		25-36%
	MA.6.GR.1.3 Also Assesses MA.6.GR.1.2		
	MA.6.GR.2.1		
	MA.6.GR.2.2		
	MA.6.GR.2.3		
	MA.6.GR.2.4		
	MA.6.DP.1.1		
	MA.6.DP.1.2		
	MA.6.DP.1.3		
	MA.6.DP.1.4		
	MA.6.DP.1.5		
	MA.6.DP.1.6		
Total Number of Items			36-40

CL = Calculator is available for items at benchmark

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Grade 7 Mathematics Benchmarks Coverage

Reporting Category	Benchmark	Calculator	% of Test
Number Sense and Operations and Algebraic Reasoning	MA.7.NSO.1.1	CL	25-31%
	MA.7.NSO.1.2		
	MA.7.NSO.2.1		
	MA.7.NSO.2.2		
	MA.7.NSO.2.3		
	MA.7.AR.1.2 Also Assesses MA.7.AR.1.1		
	MA.7.AR.2.1		
	MA.7.AR.2.2		
Proportional Reasoning and Relationships	MA.7.AR.3.1		22-31%
	MA.7.AR.3.3		
	MA.7.AR.4.1		
	MA.7.AR.4.2		
	MA.7.AR.4.3		
	MA.7.AR.4.4		
	MA.7.AR.4.5 Also Assesses MA.7.AR.3.2		
Geometric Reasoning	MA.7.GR.1.1		22-28%
	MA.7.GR.1.2		
	MA.7.GR.1.3		
	MA.7.GR.1.4		
	MA.7.GR.1.5		
	MA.7.GR.2.1		
	MA.7.GR.2.2		
	MA.7.GR.2.3		
Data Analysis and Probability	MA.7.DP.1.1		22-28%
	MA.7.DP.1.2		
	MA.7.DP.1.3		
	MA.7.DP.1.4		
	MA.7.DP.1.5		
	MA.7.DP.2.1		
	MA.7.DP.2.2		
	MA.7.DP.2.3		
	MA.7.DP.2.4		
Total Number of Items			36-40

CL = Calculator is available for items at benchmark

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Grade 8 Mathematics Benchmarks Coverage

Reporting Category	Benchmark	Calculator	% of Test
Number Sense and Operations and Probability	MA.8.NSO.1.1	CL	22-28%
	MA.8.NSO.1.2		
	MA.8.NSO.1.3		
	MA.8.NSO.1.4		
	MA.8.NSO.1.5		
	MA.8.NSO.1.6		
	MA.8.NSO.1.7		
	MA.8.DP.2.1		
	MA.8.DP.2.3 Also Assesses MA.8.DP.2.2		
Algebraic Reasoning	MA.8.AR.1.1		22-28%
	MA.8.AR.1.2		
	MA.8.AR.1.3		
	MA.8.AR.2.1		
	MA.8.AR.2.2		
	MA.8.AR.2.3		
	MA.8.AR.4.1		
	MA.8.AR.4.2		
	MA.8.AR.4.3		
Linear Relationships, Data Analysis, and Functions	MA.8.F.1.1		25-31%
	MA.8.F.1.2 Also Assesses MA.8.AR.3.1		
	MA.8.F.1.3		
	MA.8.AR.3.2		
	MA.8.AR.3.3		
	MA.8.AR.3.4		
	MA.8.AR.3.5		
	MA.8.DP.1.1		
	MA.8.DP.1.2		
	MA.8.DP.1.3		
Geometric Reasoning	MA.8.GR.1.1		22-28%
	MA.8.GR.1.2		
	MA.8.GR.1.3		
	MA.8.GR.1.4		
	MA.8.GR.1.5		
	MA.8.GR.1.6		
	MA.8.GR.2.1		
	MA.8.GR.2.2		
	MA.8.GR.2.3		
	MA.8.GR.2.4		
Total Number of Items			36-40

CL = Calculator is available for items at benchmark

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Algebra 1 EOC Benchmarks Coverage

Reporting Category	Benchmark	Calculator	% of Test
Expressions, Functions, and Data Analysis	MA.912.NSO.1.1	CL	31-38%
	MA.912.NSO.1.2		
	MA.912.NSO.1.4		
	MA.912.AR.1.1		
	MA.912.AR.1.2		
	MA.912.F.1.1		
	MA.912.F.1.2		
	MA.912.F.1.3		
	MA.912.F.1.6		
	MA.912.F.1.8 Also Assesses MA.912.FL.3.4		
	MA.912.F.2.1		
	MA.912.DP.1.2 Also Assesses MA.912.DP.1.1		
	MA.912.DP.1.4		
	MA.912.DP.3.1		
Linear Relationships	MA.912.AR.2.1		31-38%
	MA.912.AR.2.2		
	MA.912.AR.2.3		
	MA.912.AR.2.4		
	MA.912.AR.2.5		
	MA.912.AR.2.6		
	MA.912.AR.2.7		
	MA.912.AR.2.8		
	MA.912.AR.9.1		
	MA.912.AR.9.4		
	MA.912.AR.9.6		
	MA.912.F.1.5		
	MA.912.DP.2.4		
	MA.912.DP.2.6 Also Assesses MA.912.DP.1.3		
Non-Linear Relationships	MA.912.AR.1.3		31-38%
	MA.912.AR.1.4		
	MA.912.AR.1.7		
	MA.912.AR.3.1		
	MA.912.AR.3.4		
	MA.912.AR.3.5		
	MA.912.AR.3.6		
	MA.912.AR.3.7		
	MA.912.AR.3.8		
	MA.912.AR.4.1		
	MA.912.AR.4.3		
	MA.912.AR.5.3		
	MA.912.AR.5.4		
	MA.912.AR.5.6		
	MA.912.FL.3.2		
Total Number of Items			45-50

CL = Calculator is available for items at benchmark

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Geometry EOC Benchmarks Coverage

Reporting Category	Benchmark	Calculator	% of Test
Logic, Relationships, and Theorems	MA.912.GR.1.1		33-40%
	MA.912.GR.1.2		
	MA.912.GR.1.3		
	MA.912.GR.1.4		
	MA.912.GR.1.5		
	MA.912.GR.6.1		
	MA.912.GR.6.2		
	MA.912.GR.6.3		
	MA.912.GR.6.4		
	MA.912.LT.4.3		
	MA.912.LT.4.10		
Congruence, Similarity, and Constructions	MA.912.GR.1.6		27-33%
	MA.912.GR.2.1		
	MA.912.GR.2.2		
	MA.912.GR.2.3 Also Assesses MA.912.GR.2.6 Also Assesses MA.912.GR.2.8		
	MA.912.GR.2.5	CL	
	MA.912.GR.4.3		
	MA.912.GR.5.1		
	MA.912.GR.5.2		
	MA.912.GR.5.3		
Measurement and Coordinate Geometry	MA.912.GR.3.2		33-40%
	MA.912.GR.3.3 Also Assesses MA.912.GR.3.1		
	MA.912.GR.3.4		
	MA.912.GR.4.1		
	MA.912.GR.4.2		
	MA.912.GR.4.4		
	MA.912.GR.4.5		
	MA.912.GR.4.6		
	MA.912.GR.7.2		
	MA.912.GR.7.3		
	MA.912.T.1.2 Also Assesses MA.912.T.1.1		
Total Number of Items			45-50

CL = Calculator is available for items at benchmark

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Test Length

These tables provide the approximate range for the number of items on each test.

FAST Mathematics	
Grades	**Number of Items**
3–5	35-40
6–8	36-40
Note: During the Spring administration, approximately 4-5 items on all of the tests listed above are experimental (field test) items and are included in the ranges above but are not included in students' scores.	

B.E.S.T. EOCs	
Course	**Number of Items**
Algebra 1	45-50
Geometry	
Note: During the Spring administration, approximately 5 items on all of the tests listed above are experimental (field test) items and are included in the ranges above but are not included in students' scores.	

Grades	FAST Mathematics Administration Time
3–5	Up to 80 Minutes (PM1 and PM2) Up to 100 Minutes (PM3)
6–8	Up to 100 Minutes (PM1 and PM2) Up to 120 Minutes (PM3)

Course	B.E.S.T. EOC Administration Time
Algebra 1	160 Minutes*
Geometry	

*Students who need additional time may continue working up to the length of a typical school day.

Grades/Courses	Online Calculator
6	Four-function
7, 8	Scientific
Algebra 1	Scientific
Geometry	Scientific

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FAST Mathematics and B.E.S.T. EOC Item Types

All FAST and B.E.S.T. EOC assessments are **computer-based**. The Florida B.E.S.T. Standards Assessments are composed of test items that include traditional multiple-choice items as well as enhanced items that require students to select and/or support their answers. The various enhanced item types are described below.

- **Technology-Enhanced Item Types—Mathematics**
  - **Editing Task Choice**—The student clicks a drop-down menu containing options to complete an equation or expression, a statement, or other component. The student then selects the correct response from the drop-down menu. For paper-based accommodations, this item type is modified; the student fills in a bubble to indicate a selection.
  - **Selectable Hot Text**—The student is directed to click on one or more correct answers from among a number of options. When the student hovers over the options (e.g., phrases, sentences, numbers, or expressions), the text will highlight. This indicates that the text is selectable ("hot"). The options may be presented in various ways (e.g., as a list, embedded within text, or in a table). The student can then click on an option to select it. For paper-based accommodations, this item type is modified; the student fills in a bubble to indicate a selection.
  - **Multiselect**—The student is directed to select all the correct answers from among a number of options. These items are different from Multiple Choice items, which allow the student to select only one correct answer. These items appear in the online assessment and paper-based accommodations.
  - **Graphic Response Item Display (GRID)**—The student uses the point, line, or arrow tools to create a response on a graph. The item type may also require the student to select numbers, words, phrases, or images and use the drag-and-drop feature to place them into a graphic. For paper-based accommodations, this item type will be replaced with another item type.
  - **Equation Editor**—The student enters a number, variable, expression, or equation, as appropriate to the test item, in a response box. The student is presented with a toolbar that includes a variety of mathematical symbols that can be used to create a response. The response box may be separate from the text of the item, or it may be embedded within text of the item (e.g., in line with a sentence or within a table). For paper-based accommodations, this item type is modified; the student writes a response in the response box.
  - **Matching Item**—The student checks a box to indicate whether information from a column header matches information from a row. The number of correct answer options per row or column may vary. These items appear in the online assessment and paper-based accommodations.
  - **Fraction Model Item**—The student creates a fraction model. The item type either provides the student a model that is already divided into equal parts or allows the student to construct a model by choosing the number of equal parts. If the student constructs a model, the item may require the student to click the + and – buttons to choose the number of wholes and/or the number of parts in each whole. Then, the student chooses the number of parts to shade. For paper-based accommodations, this item type will be replaced with another item type.
  - **Graphing Item**—The student creates a graph or number line. The student can create a bar graph, line plot, or histogram by clicking on parts of a display. The student can plot a point, create a graph of an equation, draw a shape, or construct other responses by clicking on a grid or a coordinate grid. The student can plot a point on a number line by clicking on the number line or graph an inequality by clicking on the number line and choosing an arrow. For paper-based accommodations, this item type will be replaced with another item type.

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Any of the item types may be combined into a single item with multiple parts called a multi-interaction item. The student will interact with different item types within a single item. Each part could be a different item type. For paper-based accommodations, different selectable-response item types (multiple choice, multiselect, editing task choice, selectable hot text, and matching) may be combined into a single item.

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