



**Grade 3 Mathematics Benchmarks Coverage**

Reporting Category	Benchmark Assessed	% of Test
<p><b>Number Sense and Additive Reasoning</b></p>	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	
<p><b>Number Sense and Multiplicative Reasoning</b></p>	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	
<p><b>Fractional Reasoning</b></p>	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	
<p><b>Geometric Reasoning, Measurement, and Data Analysis and Probability</b></p>	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		
<p><b>Total Benchmark Groupings</b></p>	<p>31</p>	<p>100</p>



**Grade 4 Mathematics Benchmarks Coverage**

Reporting Category	Benchmark	% of Test
<p><b>Number Sense and Operations with Whole Numbers</b></p>	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	
	<p><b>Number Sense and Operations with Fractions and Decimals</b></p>	
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		
<p><b>Geometric Reasoning, Measurement, and Data Analysis and Probability</b></p>		MA.4.GR.1.1
	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	
<p><b>Total Benchmark Groupings</b></p>	35	100



**Grade 5 Mathematics Benchmark Coverage**

Reporting Category	Benchmark	% of Test
<p><b>Number Sense and Operations with Whole Numbers</b></p>	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	
<p><b>Number Sense and Operations with Fractions and Decimals</b></p>	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		
<p><b>Algebraic Reasoning</b></p>	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	
<p><b>Geometric Reasoning, Measurement, and Data Analysis and Probability</b></p>	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	
<p><b>Total Benchmark Groupings</b></p>	35	100



**Grade 6 Mathematics Benchmark Coverage**

Reporting Category	Benchmark	Calculator	% of Test	
<b>Number Sense and Operations</b>	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			
<b>Algebraic Reasoning</b>	MA.6.AR.1.1		CL	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				
<b>Geometric Reasoning, Data Analysis, and Probability</b>	MA.6.GR.1.1		CL	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				
<b>Total Benchmark Groupings</b>	39		100	

CL = Calculator is available for items at benchmark



**Grade 7 Mathematics Benchmarks Coverage**

Reporting Category	Benchmark	Calculator	% of Test
<b>Number Sense and Operations and Algebraic Reasoning</b>	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		
<b>Proportional Reasoning and Relationships</b>	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		
<b>Geometric Reasoning</b>	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		
<b>Data Analysis and Probability</b>	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			
<b>Total Benchmark Groupings</b>	32		100

CL = Calculator is available for items at benchmark



**Grade 8 Mathematics Benchmarks Coverage**

Reporting Category	Benchmark	Calculator	% of Test
<b>Number Sense and Operations and Probability</b>	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		
<b>Algebraic Reasoning</b>	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		
<b>Linear Relationships, Data Analysis, and Functions</b>	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			
<b>Geometric Reasoning</b>	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			
<b>Total Benchmark Groupings</b>	38		100

CL = Calculator is available for items at benchmark



**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	CL	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	CL	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			
<b>Total Benchmark Groupings</b>	43		100

CL = Calculator is available for items at benchmark



**Geometry EOC Benchmarks Coverage**

Reporting Category	Benchmark	Calculator	% of Test
<b>Logic, Relationships, and Theorems</b>	MA.912.GR.1.1	CL	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		
<b>Congruence, Similarity, and Constructions</b>	MA.912.GR.1.6	CL	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		
	MA.912.GR.4.3		
	MA.912.GR.5.1		
	MA.912.GR.5.2		
MA.912.GR.5.3			
<b>Measurement and Coordinate Geometry</b>	MA.912.GR.3.2	CL	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			
<b>Total Benchmark Groupings</b>	31		100

CL = Calculator is available for items at benchmark





### 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 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



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

All FAST and B.E.S.T. EOC assessments are **computer-based**. The following list describes the various item types that may be encountered on the tests.

- **Technology-Enhanced Item Types—Mathematics**

- **Editing Task Choice**—The student clicks a blank, which reveals 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 assessments, the item is modified so that it can be scanned and scored electronically. The student fills in a bubble to indicate the correct word or phrase.
- **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 assessments, a “selectable” hot text item is modified so that it can be scanned and scored electronically. In this version, the student fills in a bubble to indicate a selection.
- **Multiselect**—The student is directed to select all of 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 and paper-based assessments.
- **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 assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- **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 assessments, this item type may be replaced with a modified version of the item that can be scanned and scored electronically or replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- **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. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.

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 assessments, different selectable-response item types (multiple choice, multiselect, editing task choice, selectable hot text, and matching) may be combined into a single item.