DRAFT

Grade 3 Mathematics Test Item Specifications

INTENDED FOR TEST ITEM WRITERS AND REVIEWERS FOR FLORIDA'S STATEWIDE ASSESSMENTS. NOT FOR INSTRUCTIONAL USE.

The contents of these draft *Test Item Specifications (Specifications)* are based on the benchmarks provided in Florida's Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards. The *Specifications* define the content and format of the tests and test items and indicate the alignment of items with the benchmarks for test item writers and reviewers. **The *Specifications* are not intended for instructional use.**

With the adoption of Florida's B.E.S.T. Standards for ELA and Mathematics, the following comprehensive resource has been developed to support educators.

- Within the standards, **benchmark clarifications** provide helpful information for educators to understand and to implement each standard.

Given the availability of B.E.S.T. resources, and to prevent any misuse of the *Specifications* by educators, item specifications for ELA and Mathematics assessments aligned to the B.E.S.T. Standards will be reserved for their intended purpose of guiding item writers and reviewers. B.E.S.T. Standards implementation should be driven by the instructional support provided by the Just Read, Florida! Office (JRF) and the Bureau of Standards and Instructional Support (BSIS) to ensure that the focus remains on the content and skills students will engage with in the classroom.

Origin of the Specifications

The Florida Department of Education convened committees of Florida educators to help develop and approve the specifications documents.

Technology-Enhanced Item Descriptions

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 assessments, 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 assessments, 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 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 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 assessments, 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 and paper-based assessments.

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 item types (multiple choice, multiselect, editing task choice, selectable hot text, matching, and equation editor) may be combined into a single item.

Item Specifications Definitions

- **Assessment Limits** define the range of content knowledge and degree of difficulty that should be assessed in the assessment items for the benchmark(s).
- **Meaning of Also Assesses**—Where mastery of overlapping mathematical skills of associated benchmark(s) could be assessed through primary benchmark(s).
- **Calculator Availability**
  The following chart displays the type of calculator that is available for each grade or course B.E.S.T. Assessment. Note: For grades 6, 7, 8, Algebra 1, and Geometry, calculators are available for the entire assessment.

Grade/Course	Calculator
3, 4, 5	None
6	Basic four-function
7, 8	Desmos scientific
Algebra 1, Geometry	Desmos scientific

  - **Calculator Designations**
    - **None**—Items for this benchmark **may not** allow for the availability of a calculator.
    - **Available**—Items for this benchmark **must** allow for the availability of a calculator.

- **Context Designations**
  Any item could include justifying and error analysis through reasoning.
  - **Real-world**—authentic application of mathematics to real-world situations
  - **Mathematical**—using models, equations, or evaluation of mathematical reasoning in the absence of a real-world context
  - **Both**—items could either use a real-world context or be strictly mathematical

Number Sense and Operations

MA.3.NSO.1	***Understand the place value of four-digit numbers.***
MA.3.NSO.1.1	Read and write numbers from 0 to 10,000 using standard form, expanded form and word form. *Example:* The number two thousand five hundred thirty written in standard form is 2,530 and in expanded form is 2,000 + 500 + 30.
Benchmark Clarifications	
Context	Mathematical
Calculator	None
Assessment Limits	Given values are limited to whole numbers between 1,001 and 10,000.

MA.3.NSO.1	***Understand the place value of four-digit numbers.***
MA.3.NSO.1.2	Compose and decompose four-digit numbers in multiple ways using thousands, hundreds, tens and ones. Demonstrate each composition or decomposition using objects, drawings and expressions or equations. *Example*: The number 5,783 can be expressed as 5 *thousands* + 7 *hundreds* + 8 *tens* + 3 *ones* or as 56 *hundreds* + 183 *ones*.
Benchmark Clarifications	
Context	Mathematical
Calculator	None
Assessment Limits	N/A

MA.3.NSO.1	***Understand the place value of four-digit numbers.***
MA.3.NSO.1.3	Plot, order and compare whole numbers up to 10,000. *Example:* The numbers 3,475; 4,743 and 4,753 can be arranged in ascending order as 3,475; 4,743 and 4,753.
Benchmark Clarifications	*Clarification 1:* When comparing numbers, instruction includes using an appropriately scaled number line and using place values of the thousands, hundreds, tens and ones digits. *Clarification 2:* For items about plotting, number lines, scaled by 50s, 100s or 1,000s, must be provided and can be a representation of any range of numbers. *Clarification 3:* Within this benchmark, the expectation is to use symbols (<, > or =).
Context	Both
Calculator	None
Assessment Limits	Given values are limited to whole numbers between 1,001 and 10,000. Items using relational symbols are limited to two whole numbers. Items involving comparison may use relational words but must use relational symbols.

MA.3.NSO.1	***Understand the place value of four-digit numbers.***
MA.3.NSO.1.4	Round whole numbers from 0 to 1,000 to the nearest 10 or 100. *Example:* The number 775 is rounded to 780 when rounded to the nearest 10. *Example:* The number 745 is rounded to 700 when rounded to the nearest 100.
Benchmark Clarifications	
Context	Both
Calculator	None
Assessment Limits	Given values are limited to whole numbers between 101 and 1,000.

MA.3.NSO.2	***Add and subtract multi-digit whole numbers. Build an understanding of multiplication and division operations.***
MA.3.NSO.2.1	Add and subtract multi-digit whole numbers including using a standard algorithm with procedural fluency.
Benchmark Clarifications	
Context	Mathematical
Calculator	None
Assessment Limits	Sums are limited to be between 1,001 and 10,000. Numbers used for subtraction are limited to be between 1,001 and 10,000.

MA.3.NSO.2	***Add and subtract multi-digit whole numbers. Build an understanding of multiplication and division operations.***
MA.3.NSO.2.3	Multiply a one-digit whole number by a multiple of 10, up to 90, or a multiple of 100, up to 900, with procedural reliability. *Example:* The product of 6 and 70 is 420. *Example:* The product of 6 and 300 is 1,800.
Benchmark Clarifications	*Clarification 1:* When multiplying one-digit numbers by multiples of 10 or 100, instruction focuses on methods that are based on place value.
Context	Mathematical
Calculator	None
Assessment Limits	N/A

MA.3.NSO.2	***Add and subtract multi-digit whole numbers. Build an understanding of multiplication and division operations.***
MA.3.NSO.2.4	Multiply two whole numbers from 0 to 12 and divide using related facts with procedural reliability. *Example:* The product of 5 and 6 is 30. *Example:* The quotient of 27 and 9 is 3.
Benchmark Clarifications	*Clarification 1:* Instruction focuses on helping a student choose a method they can use reliably.
Also Assesses	
MA.3.NSO.2.2	Explore multiplication of two whole numbers with products from 0 to 144, and related division facts.
Benchmark Clarifications	*Clarification 1:* Instruction includes equal groups, arrays, area models and equations. *Clarification 2:* Within the benchmark, it is the expectation that one problem can be represented in multiple ways and understanding how the different representations are related to each other. *Clarification 3:* Factors and divisors are limited to up to 12.
Context	Mathematical
Calculator	None
Assessment Limits	Items assessing MA.3.NSO.2.2 must include a model.

Fractions

MA.3.FR.1	***Understand fractions as numbers and represent fractions.***
MA.3.FR.1.1	Represent and interpret unit fractions in the form $\frac{1}{n}$ as the quantity formed by one part when a whole is partitioned into *n* equal parts. *Example*: $\frac{1}{4}$ can be represented as $\frac{1}{4}$ of a pie (parts of a shape), as 1 out of 4 trees (parts of a set) or as $\frac{1}{4}$ on the number line.
Benchmark Clarifications	*Clarification 1:* This benchmark emphasizes conceptual understanding through the use of manipulatives or visual models. *Clarification 2:* Instruction focuses on representing a unit fraction as part of a whole, part of a set, a point on a number line, a visual model or in fractional notation. *Clarification 3:* Denominators are limited to 2, 3, 4, 5, 6, 8, 10 and 12.
Context	Both
Calculator	None
Assessment Limits	Items must appropriately use models, sets of objects, or number lines. Only whole number marks will be labeled on number lines.

MA.3.FR.1	***Understand fractions as numbers and represent fractions.***
MA.3.FR.1.2	Represent and interpret fractions, including fractions greater than one, in the form of $\frac{m}{n}$ as the result of adding the unit fraction $\frac{1}{n}$ to itself m times. *Example:* $\frac{9}{8}$ can be represented as $\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}$.
Benchmark Clarifications	*Clarification 1:* Instruction emphasizes conceptual understanding through the use of manipulatives or visual models, including circle graphs, to represent fractions. *Clarification 2:* Denominators are limited to 2, 3, 4, 5, 6, 8, 10 and 12.
Context	Both
Calculator	None
Assessment Limits	Fractions must reference the same whole. Items may include models, sets of objects, or number lines. Only whole number marks will be labeled on number lines. Items must not use the term “simplify” or “lowest terms.”.

MA.3.FR.1	***Understand fractions as numbers and represent fractions.***
MA.3.FR.1.3	Read and write fractions, including fractions greater than one, using standard form, numeral-word form and word form. *Example:* The fraction $\frac{4}{3}$ written in word form is four-thirds and in numeral-word form is 4 $thirds$.
Benchmark Clarifications	*Clarification 1:* Instruction focuses on making connections to reading and writing numbers to develop the understanding that fractions are numbers and to support algebraic thinking in later grades. *Clarification 2:* Denominators are limited to 2, 3, 4, 5, 6, 8, 10 and 12.
Context	Mathematical
Calculator	None
Assessment Limits	N/A

MA.3.FR.2	***Order and compare fractions and identify equivalent fractions.***
MA.3.FR.2.1	Plot, order and compare fractional numbers with the same numerator or the same denominator. *Example:* The fraction $\frac{3}{2}$ is to the right of the fraction $\frac{3}{3}$ on a number line so $\frac{3}{2}$ is greater than $\frac{3}{3}$.
Benchmark Clarifications	*Clarification 1:* Instruction includes making connections between using a ruler and plotting and ordering fractions on a number line. *Clarification 2:* When comparing fractions, instruction includes an appropriately scaled number line and using reasoning about their size. *Clarification 3:* Fractions include fractions greater than one, including mixed numbers, with denominators limited to 2, 3, 4, 5, 6, 8, 10 and 12.
Context	Both
Calculator	None
Assessment Limits	Fractions must reference the same whole. Items with given number lines will include only whole number marks labeled on the number lines. Number lines in the answer options may include fractional marks labeled on the number line. Items involving comparison may use relational words but must use relational symbols.

MA.3.FR.2	***Order and compare fractions and identify equivalent fractions.***
MA.3.FR.2.2	Identify equivalent fractions and explain why they are equivalent. *Example:* The fractions $\frac{1}{1}$ and $\frac{3}{3}$ can be identified as equivalent using number lines. *Example:* The fractions $\frac{2}{4}$ and $\frac{2}{6}$ can be identified as not equivalent using a visual model.
Benchmark Clarifications	*Clarification 1:* Instruction includes identifying equivalent fractions and explaining why they are equivalent using manipulatives, drawings, and number lines. *Clarification 2:* Within this benchmark, the expectation is not to generate equivalent fractions. *Clarification 3:* Fractions are limited to fractions less than or equal to one with denominators of 2, 3, 4, 5, 6, 8, 10 and 12. Number lines must be given and scaled appropriately.
Context	Both
Calculator	None
Assessment Limits	Fractions must reference the same whole. Items with given number lines will include only whole number marks labeled on the number lines. Number lines in the answer options may include fractional marks labeled on the number line.

Algebraic Reasoning

MA.3.AR.1	***Solve multiplication and division problems.***
MA.3.AR.1.1	Apply the distributive property to multiply a one-digit number and two-digit number. Apply properties of multiplication to find a product of one-digit whole numbers. *Example:* The product 4 × 72 can be found by rewriting the expression as 4 × (70 + 2) and then using the distributive property to obtain (4 × 70) + (4 × 2) which is equivalent to 288.
Benchmark Clarifications	*Clarification 1:* Within this benchmark, the expectation is to apply the associative and commutative properties of multiplication, the distributive property and name the properties. Refer to K-12 Glossary (Appendix C). *Clarification 2:* Within the benchmark, the expectation is to utilize parentheses. *Clarification 3:* Multiplication for products of three or more numbers is limited to factors within 12. Refer to Properties of Operations, Equality and Inequality (Appendix D).
Context	Mathematical
Calculator	None
Assessment Limits	N/A

MA.3.AR.1	***Solve multiplication and division problems.***
MA.3.AR.1.2	Solve one- and two-step real-world problems involving any of four operations with whole numbers. *Example:* A group of students are playing soccer during lunch. How many students are needed to form four teams with eleven players each and to have two referees?
Benchmark Clarifications	*Clarification 1:* Instruction includes understanding the context of the problem, as well as the quantities within the problem. *Clarification 2:* Multiplication is limited to factors within 12 and related division facts. Refer to Situations Involving Operations with Numbers (Appendix A).
Context	Real-world
Calculator	None
Assessment Limits	Items involving addition or subtraction will not use numbers greater than 10,000.

MA.3.AR.2	***Develop an understanding of equality and multiplication and division.***
MA.3.AR.2.2	Determine and explain whether an equation involving multiplication or division is true or false. *Example:* Given the equation 27 ÷ 3 = 3 × 3, it can be determined to be a true equation by dividing the numbers on the left side of the equal sign and multiplying the numbers on the right of the equal sign to see that both sides are equivalent to 9.
Benchmark Clarifications	*Clarification 1:* Instruction extends the understanding of the meaning of the equal sign to multiplication and division. *Clarification 2:* Problem types are limited to an equation with three or four terms. The product or quotient can be on either side of the equal sign. *Clarification 3:* Multiplication is limited to factors within 12 and related division facts.
Context	Mathematical
Calculator	None
Assessment Limits	Items including four terms may have the same operator or different operators on each side of the equation. Items are limited to one procedural step on either side of the equation.

MA.3.AR.2	***Develop an understanding of equality and multiplication and division.***
MA.3.AR.2.3	Determine the unknown whole number in a multiplication or division equation, relating three whole numbers, with the unknown in any position.
Benchmark Clarifications	*Clarification 1:* Instruction extends the development of algebraic thinking skills where the symbolic representation of the unknown uses any symbol or a letter. *Clarification 2:* Problems include the unknown on either side of the equal sign. *Clarification 3:* Multiplication is limited to factors within 12 and related division facts. Refer to Situations Involving Operations with Numbers (Appendix A).
Also Assesses	
MA.3.AR.2.1	Restate a division problem as a missing factor problem using the relationship between multiplication and division. *Example:* The equation 56 ÷ 7 =? can be restated as 7 ×? = 56 to determine the quotient is 8.
Benchmark Clarifications	*Clarification 1:* Multiplication is limited to factors within 12 and related division facts. *Clarification 2:* Within this benchmark, the symbolic representation of the missing factor uses any symbol or a letter.
Context	Mathematical
Calculator	None
Assessment Limits	N/A

MA.3.AR.3	***Identify numerical patterns, including multiplicative patterns.***
MA.3.AR.3.1	Determine and explain whether a whole number from 1 to 1,000 is even or odd.
Benchmark Clarifications	*Clarification 1:* Instruction includes determining and explaining using place value and recognizing patterns.
Context	Mathematical
Calculator	None
Assessment Limits	Items must include numbers from 101 to 1000. Items with explanations may include models.

MA.3.AR.3	***Identify numerical patterns, including multiplicative patterns.***
MA.3.AR.3.2	Determine whether a whole number from 1 to 144 is a multiple of a given one-digit number.
Benchmark Clarifications	*Clarification 1:* Instruction includes determining if a number is a multiple of a given number by using multiplication or division.
Context	Mathematical
Calculator	None
Assessment Limits	N/A

MA.3.AR.3	***Identify numerical patterns, including multiplicative patterns.***
MA.3.AR.3.3	Identify, create and extend numerical patterns. *Example:* Bailey collects 6 baseball cards every day. This generates the pattern 6, 12, 18, How many baseball cards will Bailey have at the end of the sixth day?
Benchmark Clarifications	*Clarification 1:* The expectation includes using ordinal numbers (1st, 2nd, 3rd …) to describe the position of a number within a sequence. *Clarification 2:* Problem types include patterns involving addition, subtraction, multiplication or division of whole numbers.
Context	Both
Calculator	None
Assessment Limits	Items involving multiplication and division are limited to multiplication factors within 12 and related division facts. Patterns will be limited to one procedural operation. Item must not provide a rule.

Measurement

MA.3.M.1	***Measure attributes of objects and solve problems involving measurement.***
MA.3.M.1.1	Select and use appropriate tools to measure the length of an object, the volume of liquid within a beaker and temperature.
Benchmark Clarifications	*Clarification 1:* Instruction focuses on identifying measurement on a linear scale, making the connection to the number line. *Clarification 2:* When measuring the length, limited to the nearest centimeter and half or quarter inch. *Clarification 3:* When measuring the temperature, limited to the nearest degree. *Clarification 4:* When measuring the volume of liquid, limited to nearest milliliter and half or quarter cup.
Context	Both
Calculator	None
Assessment Limits	Temperatures will be measured in positive, whole number degrees Celsius or Fahrenheit.

MA.3.M.1	***Measure attributes of objects and solve problems involving measurement.***
MA.3.M.1.2	Solve real-world problems involving any of the four operations with whole-number lengths, masses, weights, temperatures or liquid volumes. *Example:* Ms. Johnson's class is having a party. Eight students each brought in a 2-liter bottle of soda for the party. How many liters of soda did the class have for the party?
Benchmark Clarifications	*Clarification 1:* Within this benchmark, it is the expectation that responses include appropriate units. *Clarification 2:* Problem types are not expected to include measurement conversions. *Clarification 3:* Instruction includes the comparison of attributes measured in the same units. *Clarification 4:* Units are limited to yards, feet, inches; meters, centimeters; pounds, ounces; kilograms, grams; degrees Fahrenheit, degrees Celsius; gallons, quarts, pints, cups; and liters, milliliters.
Context	Real-world
Calculator	None
Assessment Limits	Items involving multiplication and division are limited to multiplication factors within 12 and related division facts. Items involving addition or subtraction will not use numbers greater than 10,000. Items may include multiple procedural steps.

MA.3.M.2	***Tell and write time and solve problems involving time.***
MA.3.M.2.1	Using analog and digital clocks tell and write time to the nearest minute using a.m. and p.m. appropriately.
Benchmark Clarifications	*Clarification 1:* Within this benchmark, the expectation is not to understand military time.
Context	Mathematical
Calculator	None
Assessment Limits	Items may not include the measure of time to the nearest five minute marks.

MA.3.M.2	***Tell and write time and solve problems involving time.***
MA.3.M.2.2	Solve one- and two-step real-world problems involving elapsed time. *Example:* A bus picks up Kimberly at 6:45 a.m. and arrives at school at 8:15 a.m. How long was her bus ride?
Benchmark Clarifications	*Clarification 1:* Within this benchmark, the expectation is not to include crossing between a.m. and p.m.
Context	Real-world
Calculator	None
Assessment Limits	Items will not include a visual model. Responses greater than or equal to 60 minutes will be expressed in hours and minutes.

Geometric Reasoning

MA.3.GR.1	***Describe and identify relationships between lines and classify quadrilaterals.***
MA.3.GR.1.1	Describe and draw points, lines, line segments, rays, intersecting lines, perpendicular lines and parallel lines. Identify these in two-dimensional figures.
Benchmark Clarifications	*Clarification 1:* Instruction includes mathematical and real-world context for identifying points, lines, line segments, rays, intersecting lines, perpendicular lines and parallel lines. *Clarification 2:* When working with perpendicular lines, right angles can be called square angles or square corners.
Context	Both
Calculator	None
Assessment Limits	Items with two-dimensional figures will not include hatch marks representing sides of equal lengths, arcs representing angles of equal measure, or arrows indicating parallel lines/sides. Items will not use the word “congruent.”

MA.3.GR.1	***Describe and identify relationships between lines and classify quadrilaterals.***
MA.3.GR.1.2	Identify and draw quadrilaterals based on their defining attributes. Quadrilaterals include parallelograms, rhombi, rectangles, squares and trapezoids.
Benchmark Clarifications	*Clarification 1:* Instruction includes a variety of quadrilaterals and a variety of non-examples that lack one or more defining attributes when identifying quadrilaterals. *Clarification 2:* Quadrilaterals will be filled, outlined or both when identifying. *Clarification 3:* Drawing representations must be reasonably accurate.
Context	Mathematical
Calculator	None
Assessment Limits	Items with two-dimensional figures will not include hatch marks representing sides of equal lengths, arcs representing angles of equal measure, or arrows indicating parallel lines/sides. Item will not use the word "congruent."

MA.3.GR.1	***Describe and identify relationships between lines and classify quadrilaterals.***
MA.3.GR.1.3	Draw line(s) of symmetry in a two-dimensional figure and identify line-symmetric two-dimensional figures.
Benchmark Clarifications	*Clarification 1:* Instruction develops the understanding that there could be no line of symmetry, exactly one line of symmetry or more than one line of symmetry. *Clarification 2:* Instruction includes folding paper along a line of symmetry so that both halves match exactly to confirm line-symmetric figures.
Context	Mathematical
Calculator	None
Assessment Limits	Items are not limited to geometric figures. Items containing whole figures will not show/give line(s) of symmetry.

MA.3.GR.2	***Solve problems involving the perimeter and area of rectangles.***
MA.3.GR.2.1	Explore area as an attribute of a two-dimensional figure by covering the figure with unit squares without gaps or overlaps. Find areas of rectangles by counting unit squares.
Benchmark Clarifications	*Clarification 1:* Instruction emphasizes the conceptual understanding that area is an attribute that can be measured for a two-dimensional figure. The measurement unit for area is the area of a unit square, which is a square with side length of 1 unit. *Clarification 2:* Two-dimensional figures cannot exceed 12 units by 12 units and responses must include the appropriate units in word form (e.g., square centimeter or sq. cm.).
Context	Both
Calculator	None
Assessment Limits	N/A

MA.3.GR.2	***Solve problems involving the perimeter and area of rectangles.***
MA.3.GR.2.2	Find the area of a rectangle with whole-number side lengths using a visual model and a multiplication formula.
Benchmark Clarifications	*Clarification 1:* Instruction includes covering the figure with unit squares, a rectangular array or applying a formula. *Clarification 2:* Two-dimensional figures cannot exceed 12 units by 12 units and responses must include the appropriate units in word form.
Context	Mathematical
Calculator	None
Assessment Limits	Items will not include the formula for area.

MA.3.GR.2	***Solve problems involving the perimeter and area of rectangles.***
MA.3.GR.2.3	Solve mathematical and real-world problems involving the perimeter and area of rectangles with whole-number side lengths using a visual model and a formula.
Benchmark Clarifications	*Clarification 1:* Within this benchmark, the expectation is not to find unknown side lengths. *Clarification 2:* Two-dimensional figures cannot exceed 12 units by 12 units and responses include the appropriate units in word form.
Context	Both
Calculator	None
Assessment Limits	Items will require the student to find the perimeter, the area, or both. Items based in mathematical context must not require finding only the area.

MA.3.GR.2	***Solve problems involving the perimeter and area of rectangles.***
MA.3.GR.2.4	Solve mathematical and real-world problems involving the perimeter and area of composite figures composed of non-overlapping rectangles with whole- number side lengths. *Example:* A pool is comprised of two non-overlapping rectangles in the shape of an "L". The area for a cover of the pool can be found by adding the areas of the two non-overlapping rectangles.
Benchmark Clarifications	*Clarification 1:* Composite figures must be composed of non-overlapping rectangles. *Clarification 2:* Each rectangle within the composite figure cannot exceed 12 units by 12 units and responses must include the appropriate units in word form.
Context	Both
Calculator	None
Assessment Limits	Items will require the students to find the perimeter, the area, or both. Items will not include finding a missing side length.

Data Analysis and Probability

MA.3.DP.1	***Collect, represent and interpret numerical and categorical data.***
MA.3.DP.1.2	Interpret data with whole-number values represented with tables, scaled pictographs, circle graphs, scaled bar graphs or line plots by solving one- and two-step problems.
Benchmark Clarifications	*Clarification 1:* Problems include the use of data in informal comparisons between two data sets in the same units. *Clarification 2:* Data displays can be represented horizontally or vertically. *Clarification 3:* Circle graphs are limited to showing the total values in each category.
Also Assesses	
MA.3.DP.1.1	Collect and represent numerical and categorical data with whole-number values using tables, scaled pictographs, scaled bar graphs or line plots. Use appropriate titles, labels and units.
Benchmark Clarifications	*Clarification 1:* Within this benchmark, the expectation for representation is to complete a representation or construct a representation from a data set. *Clarification 2:* Instruction includes the connection between multiplication and the number of data points represented by a bar in scaled bar graph or a scaled column in a pictograph. *Clarification 3:* Data displays are represented both horizontally and vertically.
Context	Real-world for MA.3.DP.1.2 Both for MA.3.DP.1.1
Calculator	None
Assessment Limits	Data are limited to no more than six categories. Items assessing MA.3.DP.1.1 and including numerical data sets will not be presented using braces.

Appendix A

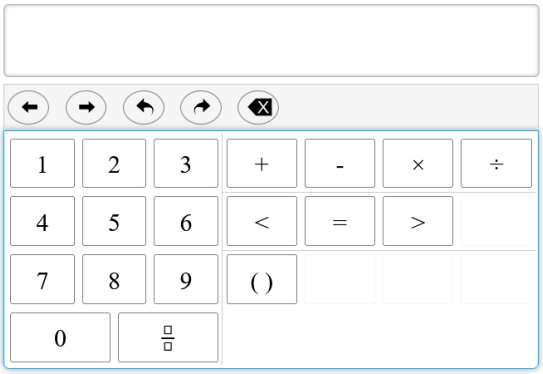
The Grade 3 Mathematics Assessment does not contain a reference sheet.

Appendix B

Keypads for Grade 3 Computer-Based Tests

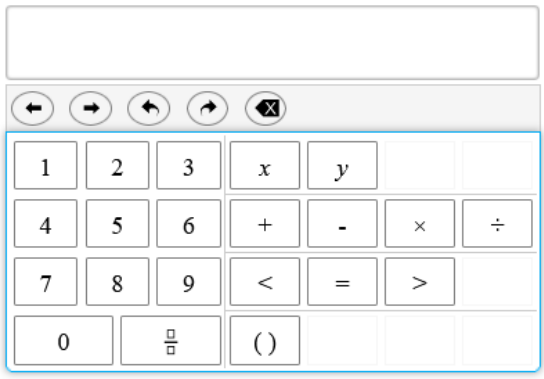
Numeric Only

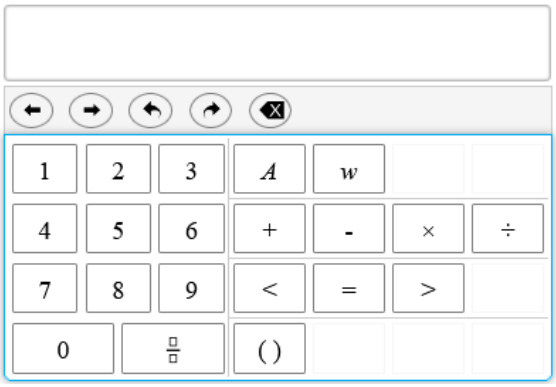
Full Keypad



Full Keypad with Variables:

Variables may change but the rest of the keys are always the same as the full keypad above.





Appendix C: Change Log

Page(s)	Change	Date
5	Updated calculator information	November 2022
1	Added “AND REVIEWERS” after “ITEM WRITERS”	June 2023
3	Removed “of” after “select all” in the multi-select section.	June 2023
25	Added “the” after “same as” in Full Keypad With Variables section. Added period to end of statement.	June 2023
3-4	Updated language to remove “scanned and scored electronically.”	August 2023