5TH GRADE MATH PACING GUIDE 2020-2021

TOPICS	STARTING	ENDING	STANDARDS
TOPIC 1 UNDERSTAND PLACE VALUE	8/31/2020	9/15/2020	NBT.1.1, NBT.1.2, NBT.1.3
TOPIC 2 USE MODELS AND STRATEGIES TO ADD AND SUB. DECIMALS	9/16/2020	9/28/2020	NBT.2.7, NBT.1.4
TOPIC 3 FLUENTLY MULTIPLY MULTI-DIGIT WHOLE NUMBERS	9/29/2020	10/15/2020	NBT.2.5, NBT.1.1, NBT.1.2
TOPIC 4 USE MODELS ANDSTRATEGIES TO MULTIPLY DECIMALS	10/16/2020	11/2/2020	NBT.2.7
TOPIC 5 USE MODELS AND STRATEGIES TO DIVIDE WHOLE NUMBERS	11/3/2020	11/18/2020	NBT.2.6
TOPIC 6 USE MODELS AND STRATEGIES TO DIVIDE DECIMALS	11/19/2020	12/3/2020	NBT.2.7, NBT.1.2
TOPIC 7 USE EQUIVALENT FRACTIONS TO ADD AND SUB. FRACTIONS	12/4/2020	1/11/2021	NF.1.2, NF.1.1
TOPIC 8 MULTIPLICATION OF FRACTIONS	1/12/2021	1/28/2021	NF.2.4, NF.2.5, NF.2.6
TOPIC 9 DIVISION OF FRACTIONS	1/29/2021	2/17/2021	NF.2.7, NF.2.3
TOPIC 10 REPRESENT AND INTERPRET DATA	2/18/2021	2/26/2021	MD.2.2
TOPIC 11 UNDERSTAND VOLUME CONCEPTS	3/1/2021	3/12/2021	MD.3.3, MD.3.4, MD.3.5
TOPIC 12 CONVERT MEASUREMENT	3/23/2021	4/8/2021	MD.1.1, NBT.1.2, NBT.2.5, NBT.2.6
TOPIC 13 WRITE AND INTERPRET NUMBERICAL EXPRESSIONS	4/9/2021	4/21/2021	OA.1.1, OA.1.2

TOPIC 14 GRAPH POINTS ON A COORDINATE PLANE	4/22/2021	4/30/2021	G.1.1, G.1.2
TOPIC 15 ALGEBRA: ANALYZE PATTERNS AND RELATIONSHIPS	5/3/2021	5/12/2021	OA.2.3
TOPIC 16 GEOMETRIC MEASUREMENTS: CLASSIFY FIGURES	5/13/2021	5/21/2021	G.1.1, G.2.4

5TH GRADE MATH CONTENT FOCUS 2020-2021

MAFS Major Cluster	**Related *Envisions* Florida Edition**	**Item Specs Assessment Limitations**	**Resource Links/Projects**
All Standards	**Baseline Assessment Performance Matters**		
MAFS.5.NBT.1.1 **MAFS.5.NBT.1.2** **MAFS.5.NBT.1.3** **(A,B)**	**Topic 1: Understand Place Value** **Must Do/Focus Lessons:** • 1-1 Patterns with Exponents and Powers of 10 • 1-2 Understand Whole-Number Place Value • 1-3 Decimals to Thousandths • 1-4 Understand Decimal Place Value • 1-5 Compare Decimals • 1-6 Round Decimals **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 1-7 Look for and use structure	-Items may require a comparison of the values of digits across multiple place values, including whole numbers and decimals from millions to thousandths. -Items may contain whole number exponents with bases of 10. -Items may contain decimals to the thousandths with the greatest place value to the millions. -The least place value a decimal may be rounded to is the hundredths place.	Dazzling Painting Company(Steam) Multiplication Error CPALMS How Many Zeroes?

			Illustrative Mathematics Tasks **3-Act Math: Buzz In**
MAFS.5.NBT.2.7 **MAFS.5.NBT.1.4**	**Topic 2: Use Models and Strategies to Add and Subtract Decimals** **Must Do/Focus Lessons:** • 2-3 Use Models to Add and Subtract Decimals • 2-4 Use Strategies to Add Decimals • 2-5 Use Strategies to Subtract Decimals **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 2-1 Mental Math • 2-2 Estimate Sums and Differences of Decimals • 2-6 Model with Math		X-treme Roller Coasters (Steam) Add and Subtract Decimals Open Ended Task
MAFS.5.NBT.2.5 **MAFS.5.NBT.1.1** **MAFS.5.NBT.1.2**	**Topic 3: Fluently Multiply Multi-Digit Whole Numbers** **Must Do/Focus Lessons:** • 3-1 Multiply Greater Numbers by Powers of 10 • 3-2 Estimate Products • 3-3 Multiply by 1-Digit Numbers • 3-4 Multiply 2-digit Numbers by 2-Digit Numbers • 3-5 Multiply 3-digit Numbers by 2-Digit Numbers • 3-6 Multiply Whole Numbers with Zeros **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 3-7 Practice Multiply Multi-Digit Numbers • 3-8 Solve word problems using multiplication • 3-9 Critique Reasoning	-Multiplication may not exceed five digits by two digits.	Which Sweets for the Bakery? Elmer's Multiplication Error Tenths and Hundredths **3-Act Math: Morning Commute**

MAFS.5.NBT.2.7	**Topic 4: Use Models and Strategies to Multiply Decimals** **Must Do/Focus Lessons:** • 4-1 Multiply Decimals by Powers of 10 • 4-3 Use Models to Multiply a Decimal and a Whole Number • 4-4 Multiply a Decimal by a Whole Number • 4-5 Use Models to Multiply a Decimal and a Decimal (practice without models too) • 4-6 Multiply Decimals Using Partial Products • 4-7 Use Properties to Multiply Decimals **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 4-2 Estimate the Product of a Decimal and a Whole Number • 4-8 Use Number Sense to Multiply Decimals • 4- 9 Model with Math	-Items may only use factors that result in decimal solutions to the thousandths place (e.g., multiplying tenths by hundredths). -Items may not include multiple different operations within the same expression (e.g., 21 + 0.34 x 8.55). -Expressions may have up to two procedural steps of the same operation.	Math Moves! (Steam) Illustrative Mathematics Tasks
MAFS.5.NBT.2.6	**Topic 5: Use Models and Strategies to Divide Whole Numbers** **Must Do/Focus Lessons:** • 5-1 Use Patterns and Mental Math to Divide • 5-3 Use Models to Divide with 2-Digit Divisors • 5-5 Use Sharing to Divide: 2-Digit Numbers • 5-6 Use Sharing to Divide: Greater Dividends **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 5-2 Estimate Quotients with 2-Digit Divisors	-Division may not exceed four digits by two digits.	Which Cell Phone for Mia? (Steam) **3-Act Math: Flapjack Stack**

	• 5-4 Use Partial Quotients to Divide • 5-7 Choose a Strategy to Divide • 5-8 Make Sense and Persevere		
MAFS.5.NBT.2.7 **MAFS.5.NBT.1.2**	**Topic 6: Use Models and Strategies to Divide Decimals** **Must Do/Focus Lessons:** • 6-1 Patterns for dividing with decimals • 6-3 Use Models to Divide by a 1-Digit Whole Number • 6-4 Divide by a 2-Digit Whole Number • 6-5 Divide by a Decimal **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 6-2 Estimate Decimal Quotients • 6-6 Problem Solving: Reasoning	-Items may only use factors that result in decimal solutions to the thousandths place (e.g., multiplying tenths by hundredths). -Items may not include multiple different operations within the same expression (e.g., 21 + 0.34 x 8.55). -Expressions may have up to two procedural steps of the same operation.	Women Warriors (Steam) Illustrative Mathematics Tasks
MAFS.5.NF.1.1 **MAFS.5.NF.1.2**	**Topic 7: Use Equivalent Fractions to Add & Subtract Fractions** **Must Do/Focus Lessons:** • 7-1 Estimate Sums and Differences of Fractions • 7-2 Find Common Denominators • 7-3 Add Fractions with Unlike Denominators • 7-4 Subtract Fractions with Unlike Denominators • 7-5 Add and Subtract Fractions • 7-6 Estimate Sums and Differences of Mixed Numbers • 7-7 Use Models to Add Mixed Numbers • 7-8 Add Mixed Numbers • 7-9 Use Models to Subtract Mixed Numbers • 7-10 Subtract Mixed Numbers • 7-11 Add and Subtract Mixed Numbers **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):**	-Fractions greater than 1 and mixed numbers may be included. -Expressions may have up to three terms. -Least common denominator is not necessary to calculate sums or differences of fractions. -Items may not use the terms "simplify" or "lowest terms." -For given fractions in items, denominators are limited to 1-20.	Fly Runners: Order of Operations Sunshine Beach Hotel (Steam) Property Picking Pickle (Steam) **3-Act Math: The Gif Recipe**

	• 7-12 Model with Math	-Items may require the use of equivalent fractions to find a missing term or part of a term.	
MAFS.5.NF.2.4 (a,b) **MAFS.5.NF.2.5 (a,b)** **MAFS.5.NF.2.6**	**Topic 8: Apply Understanding of Multiplication to Multiplication of Fractions** **Must Do/Focus Lessons:** • 8-1 Multiply a Fraction by a Whole Number • 8-2 Multiply a Whole Number by a Fraction • 8-4 Use Models to Multiply Two Fractions • 8-5 Multiply Two Fractions • 8-6 Area of a Rectangle • 8-7 Multiply Mixed Numbers • 8-8 Multiplication as Scaling **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 8-3 Multiply Fractions and Whole Numbers • 8-9 Make Sense and Persevere	-Visual models may include: Any appropriate fraction model (e.g., circles, tape diagrams, polygons, etc.) Rectangle models tiled with unit squares -For tiling, the dimensions of the tile must be unit fractions with the same denominator as the given rectangular shape. -Items may not use the terms "simplify" or "lowest terms." -Items may require students to interpret the context to determine operations. -Fractions may be greater than 1. -For given fractions in items, denominators are limited to 1-20. -Non-fraction factors in items must be greater than 1,000. -Scaling geometric figures may not be assessed. Scaling quantities of any kind in two dimensions is beyond the scope of this standard.	Wildlife Refuge-Feeding the Animals (Steam) Illustrative Mathematics Tasks
All Standards	**Mid-Year Assessment Performance Matters**		
MAFS.5.NF.2.7 (a,b,c) **MAFS.5.NF.2.3**	**Topic 9: Apply Understanding of Division to Dividing Fractions**	-Quotients in division items may not be	Babysitter's Fun Club with Fractions

	Must Do/Focus Lessons: • 9-1 Fractions and Division • 9-2 Fractions and Mixed Numbers as Quotients • 9-3 Use Multiplication to Divide • 9-4 Divide Whole Numbers by Unit Fractions • 9-5 Divide Unit Fractions by Non-Zero Whole #'s • 9-6 Divide Whole Numbers and Unit Fractions **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 9-7 Solve Problems Using Division • 9-8 Repeated Reasoning	equivalent to a whole number. -Items may contain fractions greater than 1. -Only use whole numbers for the divisor and dividend of a fraction. -For given fractions in items, denominators are limited to 1-20.	Salad Dressing (Steam) **3-Act Math: Slime Time**
MAFS.5.MD.2.2	**Topic 10: Represent and Interpret Data** **Must Do/Focus Lessons:** • 10-1 Analyze Line Plots • 10-2 Make Line Plots • 10-3 Solve Word Problems Using Measurement Data • 10-4 Critique Reasoning	-Items requiring operations on fractions must adhere to the Assessment Limits for that operation's corresponding standard.	Bridge to Perfection (Steam) Trapezoids (Steam) Box of Clay (Steam)
MAFS.5.MD.3.3 (a,b) **MAFS.5.MD.3.4** **MAFS.5.MD.3.5**	**Topic 11: Understand Volume Concepts** **Must Do/Focus Lessons:** • 11-1 Model Volume • 11-2 Develop a Volume Formula • 11-3 Combine Volumes of Prisms • 11-4 Solve Word Problems Using Volume • 11-5 Use Appropriate Tools	-Items may contain right rectangular prisms with whole-number side lengths. -Figures may only be shown with unit cubes. -Labels may include cubic units (i.e. cubic centimeters, cubic feet, etc.) or exponential units (i.e., cm3, ft3, etc.). -Items requiring measurement of volume by counting unit cubes must provide a key of the cubic unit. -Items may not contain fraction or	Sunshine Beach Hotel Playground Dilemma (Steam) **3-Act Math: Fill'er Up**

		decimal dimensions or volumes. -Items may contain no more than two non-overlapping prisms – non-overlapping means that two prisms may share a face, but they do not share the same volume. -Items assessing MAFS.5.MD.3.5b may not contain the use or graphic of unit cubes. -Items assessing MAFS.5.MD.3.5c must contain a graphic of the figures.	
MAFS.5.MD.1.1 **MAFS.5.NBT.1.2** **MAFS.5.NBT.2.5** **MAFS.5.NBT.2.6**	**Topic 12: Convert Measurements** **Must Do/Focus Lessons:** • 12-1 Convert Customary Units of Length • 12-2 Convert Customary Units of Capacity • 12-3 Convert Customary Units of Weight • 12-4 Convert Metric Units of Length • 12-5 Convert Metric Units of Capacity • 12-6 Convert Metric Units of Mass • 12-7 Convert Units of Time • 12-8 Solve Word Problems Using Measurement Conversion **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 12-9 Problem Solving: Precision	-Measurement values may be whole, decimal, or fractional values. -Conversions must be within the same system.	Shoe Closet MEA (Steam) Illustrative Mathematics Tasks
All Standards	**Mid-Year Assessment Performance Matters**		
MAFS.5.OA.1.1 **MAFS.5.OA.1.2**	**Topic 13: Write and Interpret Numerical Expressions** **Must Do/Focus Lessons:** • 13-1 Evaluate Expressions • 13-2 Write Numerical Expressions • 13-3 Interpret Numerical Expressions	-Expressions may contain whole numbers and up to one fraction with a denominator of 10 or less.	**3-Act Math: Measure Me!**

	May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons): • 13-4 Problem Solving: Reasoning	-Items may not require division with fractions. -Items may not contain nested grouping symbols. -Expressions may not include nested parentheses. -Multiplication cross symbol is the only acceptable symbol for multiplication. The multiplication dot may not be used. -When grouping symbols are part of the expression, the associative property or distributive property must be found in the expression.	
MAFS.5.G.1.1 **MAFS.5.G.1.2**	**Topic 14: Graph Points on A Coordinate Plane** **Must Do/Focus Lessons:** • 14-1 The Coordinate System • 14-2 Graph Data Using Ordered Pairs • 14-3 Solve Problems Using Ordered Pairs **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 14-4 Problem Solving: Reasoning	-Items assessing MAFS.5.G.1.1 may not require directions between two given points. Points must rely on the origin. -Items assessing MAFS.5.G.1.1 may require identifying the point (e.g., *Point A*) on a coordinate grid that represents a given ordered pair. -Items assessing MAFS.5.G.1.1 may require determining the ordered pair that represents a given point on the coordinate plane. -Items assessing MAFS.5.G.1.1 may not require	Illustrative Mathematics Tasks

		graphing/plotting a point given an ordered pair. -Points may only contain positive, whole number ordered pairs. -Mathematical and real-world problems must have axes scaled to whole numbers (not letters).	
MAFS. 5.OA. 2.3	**Topic 15: Algebra: Analyze Patterns and Relationships** **Must Do/Focus Lessons:** • 15-1 Numerical Patterns • 15-2 More Numerical Patterns • 15-3 Analyze and Graph Relationships **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 15-4 Make Sense and Persevere	-Ordered pairs many only be located within Quadrant I of the coordinate plane. -Operations in rules limited to: addition, subtraction, multiplication, and division. -Patterns that require division may not lead to fractional terms. -Items may not contain rules that exceed two procedural operations. -Items must provide the rule. -Expressions may not include nested parentheses.	**3-Act Math:** **Speed Stacks**
MAFS.5.G. 1.1 **MAFS.5.G. 2.4**	**Topic 16: Geometric Measurements: Classify 2-Dimentional Figures** **Must Do/Focus Lessons:** • 16-1 Classify Triangles • 16-2 Classify Quadrilaterals	-Attributes of figures may be given or presented within given graphics. -Items that include trapezoids must consider both the inclusive and exclusive definitions. -Items may not use the term "kite" but may include the figure.	

	• 16-3 Continue to Classify Quadrilaterals **May Do (Great as Bell Work, Enrichment, or if you have extra days for more lessons):** • 16-4 Construct Arguments		
All Standards	**FSA Review/Prep**		

Stepping up to 6th Grade Topic 17		
After FSA Testing	**MAFS.6.NS.3.5** **MAFS.6.NS.3.6 (a,b,c)** **MAFS.6.RP.1.1** **MAFS.6.RP.1.2** **MAFS.6.RP.1.3** **MAFS.6.NS.1.1** **MAFS.6.G.1.1**	• **Prior to completing Topic 17, review current grades standards for mastery (Based on Individual Class Data)** **Topic 17:** • **Understand Division of Fractions** • **Understand Integers** • **Rational Numbers on a Coordinate Plane** • **Understand and Represent Exponents** • **Understand Equations and Solutions** • **Understand Ratios** • **Understand Rates and Unit Rates** • **Understand Percents** • **Relate Fractions, Decimals, and Percents** • **Find Areas of Parallelograms and Rhombuses**
Last Week of School Activities		
		• **Project Based Learning** • **Mathematical Wrap-Up Activities** • **Collect all Math Materials**

DRAFT

Grade 5 Mathematics Item Specifications

Florida Standards Assessments

The draft Florida Standards Assessments (FSA) *Test Item Specifications* (*Specifications)* are based upon the Florida Standards and the Florida Course Descriptions as provided in CPALMs. The *Specifications* are a resource that defines the content and format of the test and test items for item writers and reviewers.

Each grade-level and course *Specifications* document indicates the alignment of items with the Florida Standards. It also serves to provide all stakeholders with information about the scope and function of the FSA.

Item Specifications Definitions

Also assesses refers to standard(s) closely related to the primary standard statement.

Clarification statements explain what students are expected to do when responding to the question.

Assessment limits define the range of content knowledge and degree of difficulty that should be assessed in the assessment items for the standard.

Item types describe the characteristics of the question.

Context defines types of stimulus materials that can be used in the assessment items.

- **Context – Allowable** refers to items that may but are not required to have context.
- **Context – No context** refers to items that should not have context.
- **Context – Required** refers to items that must have context.

Content Standard	***MAFS.5.OA*** *Operations and Algebraic Thinking* ***MAFS.5.OA.1*** *Write and interpret numerical expressions.* **MAFS.5.OA.1.1** Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	
Assessment Limits	Expressions may contain whole numbers and up to one fraction with a denominator of 10 or less. Items may not require division with fractions. Items may not contain nested grouping symbols.	
Calculator	No	
Item Types	Equation Editor GRID Multiple Choice Multiselect	
Context	No context	
Sample Item		Item Type

An expression is shown. 3 + 8 – 4 x 2 – 12 Create an equivalent expression that includes a set of parentheses so that the value of the expression is 2.	Equation Editor
What is the value of the expression x [4 + 6] – 9?	Equation Editor

A numerical expression is evaluated as shown. x {6 x 1 + 7} + 11 Step 1: x {6 x 8} + 11 Step 2: x 48 + 11 Step 3: 24 + 11 Step 4: 35 In which step does a mistake first appear? A. Step 1 B. Step 2 C. Step 3 D. Step 4	Multiple Choice	**10**
See Appendix for the practice test item aligned to this standard.		

Content Standard	***MAFS.5.OA*** *Operations and Algebraic Thinking* ***MAFS.5.OA.1*** *Write and interpret numerical expressions.* **MAFS.5.OA.1.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.

Assessment Limits	Expressions may contain whole numbers or fractions with a denominator of 10 or less. Expressions may not include nested parentheses. Multiplication cross symbol is the only acceptable symbol for multiplication. The multiplication dot ( ) may not be used. When grouping symbols are part of the expression, the associative property or distributive property must be found in the expression.
Calculator	No
Item Types	Equation Editor Multiple Choice Multiselect Open Response
Context	No context

Sample Item	Item Type
Which expression could represent the following phrase? Divide 10 by 2, then subtract 3. A. 2 ÷ 10 – 3 B. 2 ÷ (10 – 3) C. 10 ÷ 2 – 3 D. 10 ÷ (2 – 3)	Multiple Choice

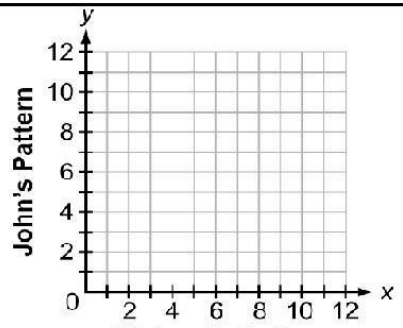
Which statement describes the expression 18 + x (9 – 4) ? A. Half the difference of 4 from 9 added to 18 B. Subtract half the quantity of 9 and 4 from 18 C. The sum of 18 and half the product of 9 and 4 D. Half of 9 added to 18 minus 4	Multiple Choice
See Appendix for the practice test item aligned to this standard.	

Content Standard	***MAFS.5.OA*** *Operations and Algebraic Thinking* ***MAFS.5.OA.2*** *Analyze patterns and relationships.* **MAFS.5.OA.2.3** Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so*.

Assessment Limits	Expressions may contain whole numbers or fractions with a denominator of 10 or less. Ordered pairs many only be located within Quadrant I of the coordinate plane. Operations in rules limited to: addition, subtraction, multiplication, and division. Patterns that require division may not lead to fractional terms. Items may not contain rules that exceed two procedural operations. Items must provide the rule. Expressions may not include nested parentheses.
Calculator	No
Item Types	Editing Task Choice Equation Editor GRID Hot Text Multiple Choice Multiselect Open Response Table Item
Context	Allowable

Sample Item	Item Type
Michael and John are creating patterns. • Michael uses the rule “multiply by 2” and starts at 5. • John uses the rule “add 8” and starts at 16. What is the first number in Michael’s pattern that also appears in John’s pattern?	Equation Editor

Sample Item	Item Type

Michael and John are creating patterns. Each pattern starts at 1. • Michael uses the rule “multiply by 2, then add 1.” • John uses the rule “multiply by 2, then add 2.” A. Drag numbers into the table to show the next 2 terms for Michael’s pattern and John’s pattern. B. Use the Add Point tool to plot the ordered pairs that are created from the first three terms of their patterns. Michael's pattern provides the *x* values and John's pattern provides the *y* values. 0 1 2 3 4 5 6 7 8 9 Delete Add Point A. Michael’s Pattern | John’s Pattern 1 | 1 B.  	GRID
See Appendix for the practice test item aligned to this standard.	

Content Standard	***MAFS.5.NBT*** *Number and Operations in Base Ten* ***MAFS.5.NBT.1*** *Understand the place value system.* **MAFS.5.NBT.1.1** Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and __ of what it represents in the place to its left.
Assessment Limit	Items may require a comparison of the values of digits across multiple place values, including whole numbers and decimals from millions to thousandths.
Calculator	No
Item Types	Editing Task Choice Equation Editor Hot Text Multiple Choice Multiselect Open Response
Context	Allowable

Sample Item	Item Type
What is the missing value in the equation shown? ☐ $\frac{1}{10}$ x = 0.034	Equation Editor

What is the value of the missing number in the following equation? 0.34 x ☐ = 3.4 A. 10 B. 100 C. __ D.	Multiple Choice
How many times greater is the value 0.34 than the value 0.0034?	Equation Editor
See Appendix for the practice test item aligned to this standard.	

Content Standard	***MAFS.5.NBT*** *Number and Operations in Base Ten* ***MAFS.5.NBT.1*** *Understand the place value system.* **MAFS.5.NBT.1.2** Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
Assessment Limits	Items may contain whole number and decimal place values from millions to thousandths. Items may contain whole number exponents with bases of 10.

Calculator	No
Item Types	Editing Task Choice Equation Editor GRID Hot Text Multiple Choice Multiselect Open Response
Context	No context

Sample Item	Item Type
What is 0.523×10^2?	Equation Editor
What is the value of the missing exponent in the equation $523 \div 10^{\square} = 52.3$?	Equation Editor
Which statement is equivalent to multiplying a number by 10^3? A. adding 10 three times B. adding 3 ten times C. multiplying by 10 three times D. multiplying by 3 ten times	Multiple Choice
When dividing a number by 10^3, how is the decimal point moved? A. 3 places to the right B. 3 places to the left C. 4 places to the right D. 4 places to the left	Multiple Choice

See Appendix for the practice test item aligned to this standard.

Content Standard	***MAFS.5.NBT*** *Number and Operations in Base Ten* ***MAFS.5.NBT.1*** *Understand the place value system.* **MAFS.5.NBT.1.3** Read, write, and compare decimals to thousandths. **MAFS.5.NBT.1.3a** Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × __ + 9 —) × ___ **MAFS.5.NBT.1.3b** Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
Assessment Limit	Items may contain decimals to the thousandths with the greatest place value to the millions.
Calculator	No
Item Types	Equation Editor GRID Matching Item Multiple Choice Multiselect

<table>
<tr><td>Context</td><td colspan="2">Allowable</td></tr>
<tr><td colspan="2">Sample Item</td><td>Item Type</td></tr>
<tr><td colspan="2">What is “two hundred sixty-five thousandths” in decimal form?

A. 260.005
B. 265.0 C.
0.265
D. 2.65</td><td>Multiple Choice</td></tr>
<tr><td colspan="2">Select the decimal form for each number name.

<table><tr><th></th><th>0.650</th><th>0.605</th><th>0.065</th><th>6.050</th></tr><tr><td>Sixty-five thousandths</td><td>□</td><td>□</td><td>□</td><td>□</td></tr><tr><td>Six hundred five thousandths</td><td>□</td><td>□</td><td>□</td><td>□</td></tr></table></td><td>Matching Item</td></tr>
<tr><td colspan="2"></td><td></td></tr>
</table>

A number in expanded form is shown. 3 x 1 + 2 x __ + 6 x ___ + 5 ___) x What is the number in decimal form?	Equation Editor

Sample Item	Item Type
Select all the expressions that show 2.059 written in expanded form. □ 2 x 1 + 0 $\frac{}{10}$ $\left(\frac{}{100}\right)$ x + 5 x + 9 x □ 2 x 1 + 5 $\frac{1}{10}$ $\left(\frac{1}{100}\right)$ x + 9 x □ 2 x 1 + 0 $\frac{1}{}$ + 59 x $\left(\frac{1}{1,000}\right)$ □ 2 x 1 + 0 x $\left(\frac{1}{100}\right)$ □ $\frac{}{10}$ $\left(\frac{1}{}\right)$ $\left(\frac{1}{}\right.$ □ 20 x + 5 x +	Multiselect
See Appendix for the practice test item aligned to a standard in this group.	

Content Standard	***MAFS.5.NBT*** *Number and Operations in Base Ten* ***MAFS.5.NBT.1*** *Understand the place value system.*

	MAFS.5.NBT.1.4 Use place value understanding to round decimals to any place.
Assessment Limits	Items may contain decimals to the thousandths with the greatest place value to the millions. The least place value a decimal may be rounded to is the hundredths place.
Calculator	No
Item Types	Equation Editor Matching Item Multiple Choice Multiselect Table Item
Context	Allowable

Sample Item	Item Type
Select all the numbers that round to 4.3 when rounded to the nearest tenth. □ 4.25 □ 4.24 □ 4.31 □ 4.352 □ 4.219 □ 4.305	Multiselect
What is 3.149 rounded to the nearest hundredth?	Equation Editor

<table>
<tr><td>Numbers are rounded to the nearest tenth and hundredth, as shown in the table.

Complete the table to show the numbers that could be rounded.

<table>
<tr><th>Number</th><th>Rounded to Nearest Tenth</th><th>Rounded to Nearest Hundredth</th></tr>
<tr><td>☐</td><td>1.5</td><td>1.55</td></tr>
<tr><td>☐</td><td>3.2</td><td>3.18</td></tr>
<tr><td>☐</td><td>9.4</td><td>9.35</td></tr>
</table>
</td><td>Table Item</td></tr>
<tr><td colspan="2">See Appendix for the practice test item aligned to this standard.</td></tr>
</table>

Content Standard	***MAFS.5.NBT*** *Number and Operations in Base Ten* ***MAFS.5.NBT.2*** *Perform operations with multi-digit whole numbers and with decimals to hundredths.* **MAFS.5.NBT.2.5** Fluently multiply multi-digit whole numbers using the standard algorithm.
Assessment Limit	Multiplication may not exceed five digits by two digits.
Calculator	No
Item Types	Equation Editor GRID Multiple Choice Multiselect

Context	Allowable	
Sample Item		Item Type
Multiply: 423 x 79		Equation Editor
See Appendix for the practice test item aligned to this standard.		

Content Standard	***MAFS.5.NBT*** *Number and Operations in Base Ten* ***MAFS.5.NBT.2*** *Perform operations with multi-digit whole numbers and with decimals to hundredths.* **MAFS.5.NBT.2.6** Find whole-number quotients of whole numbers with up to fourdigit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
Assessment Limit	Division may not exceed four digits by two digits.
Calculator	No

Item Types	Equation Editor GRID Multiple Choice Multiselect Open Response
Context	Allowable

Sample Item	Item Type
Select all the expressions that have a value of 34. □ 340 ÷ 16 □ 380 ÷ 13 □ 408 ÷ 12 □ 510 ÷ 15 □ 680 ÷ 24	Multiselect

See Appendix for the practice test item aligned to this standard.

Content Standard	***MAFS.5.NBT*** *Number and Operations in Base Ten* ***MAFS.5.NBT.2*** *Perform operations with multi-digit whole numbers and with decimals to hundredths.* **MAFS.5.NBT.2.7** Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
Assessment Limits	Items may only use factors that result in decimal solutions to the thousandths place (e.g., multiplying tenths by hundredths). Items may not include multiple different operations within the same expression (e.g., 21 + 0.34 x 8.55). Expressions may have up to two procedural steps of the same operation.
Calculator	No
Item Types	Editing Task Choice Equation Editor GRID Hot Text Multiple Choice Multiselect Open Response
Context	Allowable
Sample Item	Item Type

What is the value of the expression? 5.2 x 10.38	Equation Editor
An expression is shown. 12.25 + 3.05 + 0.6 What is the value of the expression?	Equation Editor
See Appendix for the practice test item aligned to this standard.	

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Content Standard	***MAFS.5.NF*** *Numbers and Operations – Fractions* ***MAFS.5.NF.1*** *Use equivalent fractions as a strategy to add and subtract fractions.* **MAFS.5.NF.1.1** Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example,* − + − = — + — = —. *(In general,* − + − = ——— *.)*
Assessment Limits	Fractions greater than 1 and mixed numbers may be included. Expressions may have up to three addends. Least common denominator is not necessary to calculate sums or differences of fractions. Items may not use the terms “simplify” or “lowest terms.” For given fractions in items, denominators are limited to 1-20. Items may require the use of equivalent fractions to find a missing addend or part of an addend.
Calculator	No
Item Types	Equation Editor GRID Multiple Choice Multiselect
Context	No context

Sample Item	Item Type
What is the value of the expression? A. B. C. D.	Multiple Choice
What is the value of the expression 6 4 ?	Equation Editor
See Appendix for the practice test item aligned to this standard.	

Content Standard	***MAFS.5.NF*** *Number and Operations - Fractions* ***MAFS.5.NF.1*** *Use equivalent fractions as a strategy to add and subtract fractions.* **MAFS.5.NF.1.2** Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result* − + − = − *, by observing that .*
Assessment Limits	Fractions greater than 1 and mixed numbers may be included. Expressions may have up to three addends. Least common denominator is not necessary to calculate sums or differences of fractions. Items may not use the terms “simplify” or “lowest terms.” For given fractions in items, denominators are limited to 1-20. Items may require the use of equivalent fractions to find a missing addend or part of an addend.
Calculator	No

Item Types	Equation Editor GRID Multiple Choice Multiselect Open Response
Context	Required

Sample Item	Item Type
John and Sue are baking cookies. The recipe lists cup of flour. They only have cup of flour left. How many more cups of flour do they need to bake the cookies?	Equation Editor
Javon, Sam, and Antoine are baking cookies. Javon has cup of flour, Sam has 1 cups of flour, and Antoine has 1 cups of flour. How many cups of flour do they have altogether?	Equation Editor

Sample Item	Item Type

Richard and Gianni each bought a pizza. The pizzas are the same size. • Richard cut his pizza into 12 slices. • Gianni cut his pizza into 6 slices, and ate 2 slices. • Together, Richard and Gianni ate of one pizza. How many slices of his pizza did Richard eat? A. 3 B. 5 C. 6 D. 7	Multiple Choice
See Appendix for the practice test item aligned to this standard.	

Content Standard	***MAFS.5.NF*** *Numbers and Operations – Fractions* ***MAFS.5.NF.2*** *Apply and extend previous understandings of multiplication and division to multiply and divide fractions.* **MAFS.5.NF.2.3** Interpret a fraction as division of the numerator by the denominator . Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *For example,* *interpret* $\frac{3}{4}$ *as the result of dividing 3 by 4, noting that* $\frac{3}{4}$ *multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a* *share of size* $\frac{3}{4}$*. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*
Assessment Limits	Quotients in division items may not be equivalent to a whole number. Items may contain fractions greater than 1. Items may not use the terms “simplify” or “lowest terms.” Only use whole numbers for the divisor and dividend of a fraction. For given fractions in items, denominators are limited to 1-20.
Calculator	No

Item Types	Equation Editor GRID Multiple Choice Multiselect Open Response Table Item
Context	Allowable

Sample Item	Item Type
Which expression is equivalent to ___ ? A. 8 – 15 B. 15 – 8 C. 8 ÷ 15 D. 15 ÷ 8	Multiple Choice
Joe has a board that is 6 feet long. He needs to cut the board into 15 equal-length pieces. How many feet long should each piece of the board be?	Equation Editor

See Appendix for the practice test item aligned to this standard.

Content Standard	***MAFS.5.NF*** *Number and Operations – Fractions* ***MAFS.5.NF.2*** *Apply and extend previous understanding of multiplication and division to multiply and divide fractions.* **MAFS.5.NF.2.4** Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. **MAFS.5.NF.2.4a** Interpret the product $\left(\frac{a}{b} \times q\right)$ as *a* parts of a partition of *q* into *b* equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. *For example, use a visual fraction model to show* $\left(\frac{2}{3} \times 4\right) = \frac{8}{3}$, *and create a story context for this equation. Do the same with* $\left(\frac{2}{3} \times \frac{4}{5}\right) = \frac{8}{15}$. *(In general,* $\left(\frac{a}{b} \times \frac{c}{d}\right) = \frac{ac}{bd}$*).* **MAFS.5.NF.2.4b** Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas. Also Assesses:

	MAFS.5.NF.2.6 Solve real-world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

Assessment Limits	Visual models may include: • Any appropriate fraction model (e.g., circles, tape, polygons, etc.) • Rectangle models tiled with unit squares For tiling, the dimensions of the tile must be unit fractions with the same denominator as the given rectangular shape. Items may not use the terms “simplify” or “lowest terms.” Items may require students to interpret the context to determine operations. Fractions may be greater than 1. For given fractions in items, denominators are limited to 1-20.
Calculator	No
Item Types	Equation Editor GRID Multiple Choice Multiselect
Context	Allowable for MAFS.5.NF.2.4; Required for MAFS.5.NF.2.6

Sample Item	Item Type

Which expression is equivalent to $- \times -$? A. $\_\_$ B. $\_\_$ C. $\_\_$ D. $\_\_$	Multiple Choice
Roger has 2 gallons of water in a jug. He pours of the water into a new container. How many gallons of water does Roger have left in the jug?	Equation Editor
Courtney has 4 gallons of milk. She uses of the milk to make hot chocolate. Then, she uses of the remaining milk to make cookies. How many gallons of milk does Courtney have left after making hot chocolate and cookies?	Equation Editor
See Appendix for the practice test item aligned to a standard in this group.	

Content Standard	***MAFS.5.NF*** *Number and Operations — Fractions* ***MAFS.5.NF.2*** *Apply and extend previous understandings of multiplication and division to multiply and divide fractions.* **MAFS.5.NF.2.5** Interpret multiplication as scaling (resizing), by: **MAFS.5.NF.2.5a** Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. **MAFS.5.NF.2.5b** Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence – = —— to the effect of multiplying _ by 1.
Assessment Limits	For given fractions in items, denominators are limited to 1-20. Nonfraction factors in items must be greater than 1,000. Scaling geometric figures may not be assessed. Scaling quantities of any kind in two dimensions is beyond the scope of this standard.

Calculator	No
Item Types	Editing Task Choice Hot Text Matching Item Multiple Choice Multiselect Open Response
Context	Allowable

Sample Item	Item Type
Two newspapers are comparing sales from last year. • The Post sold 34,859 copies. • The Tribune sold 34,859 x copies. Which statement compares the numbers of newspapers sold? A. The Post sold half the number of newspapers that the Tribune sold. B. The Tribune sold half the number of newspapers that the Post sold. C. The Tribune sold twice the number of newspapers that the Post sold. D. The Post sold the same number of newspapers that the Tribune sold.	Multiple Choice

Sample Item	Item Type

Two newspapers are comparing sales from last year. • The Post sold 34,859 copies. • The Tribune sold one-and-a-half times as many copies as the Post. Which expression describes the number of newspapers the Tribune sold? A. 34,859 $\frac{}{2}$ × 1 B. 34,859 $\frac{1}{}$ ÷ 1 C. 34,859 × D. 34,859 ÷	Multiple Choice
Select all the expressions that have a value greater than 1,653. □ 1,653 × □ 1,653 × 4 □ 1,653 × 12 □ 1,653 × □ 1,653 × 1 □	Multiselect
See Appendix for the practice test item aligned to a standard in this group.	

Content Standard	***MAFS.5.NF*** *Number and Operations – Fractions* ***MAFS.5.NF.2*** *Apply and extend previous understandings of multiplication and division to multiply and divide fractions.* **MAFS.5.NF.2.7** *Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.* **MAFS.5.NF.2.7a** Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. *For example, create a story context for* 4*, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that* 4 *because* 4 . **MAFS.5.NF.2.7b** Interpret division of a whole number by a unit fraction, and compute such quotients. *For example, create a story context for* 4 *,and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that* 4 20 *because* 20 4*.*

	MAFS.5.NF.2.7c Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, how much chocolate will each person get if 3 people share lb. of chocolate equally? How many cup servings are in 2 cups of raisins?*

Assessment Limit	For given fractions in items, denominators are limited to 1-20.
Calculator	No
Item Types	Equation Editor GRID Multiple Choice Multiselect Open Response
Context	Allowable

Sample Item	Item Type
An expression is shown. ÷ 12 What is the value of the expression?	Equation Editor

Sample Item	Item Type

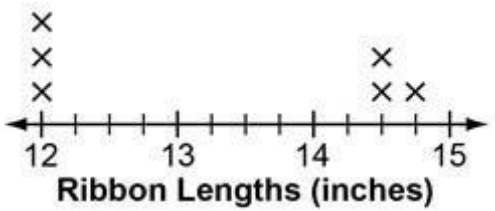
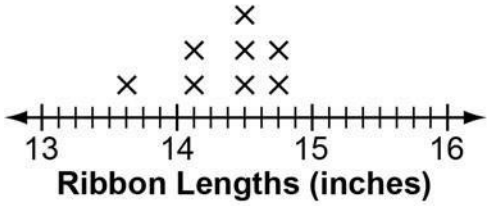
Julio has 8 pounds of candy. He wants to put the candy into bags so that each bag has pound. Which equation shows how to calculate the number of bags of candy Julio can make? A. 16 × = 8 B. 16 × 2 = 32 C. 16 × 8 = D. 16 × 8 = 128	Multiple Choice
Julio has 12 pounds of candy. He wants to put the candy into bags so that each bag has pound of candy. How many total bags of candy can Julio make?	Equation Editor
See Appendix for the practice test item aligned to a standard in this group.	

Content Standard	***MAFS.5.MD*** *Measurement and Data* ***MAFS.5.MD.1*** *Convert like measurement units within a given measurement system.* **MAFS.5.MD.1.1** Convert among different-sized standard measurement units (i.e., km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec) within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real-world problems.
Assessment Limits	Measurement values may be whole, decimal, or fractional values. Conversions must be within the same system.
Calculator	No
Item Types	Equation Editor GRID Multiple Choice Multiselect Open Response Table Item
Context	Allowable

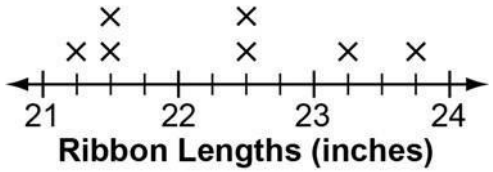
Sample Item	Item Type
Michael is measuring fabric for the costumes of a school play. He needs 11.5 meters of fabric. He has 28.5 centimeters of fabric. How many more centimeters of fabric does he need?	Equation Editor

See Appendix for the practice test item aligned to this standard.

Content Standard	***MAFS.5.MD*** *Measurement and Data* ***MAFS.5.MD.2*** *Represent and interpret data.* **MAFS.5.MD.2.2** Make a line plot to display a data set of measurements in fractions of a unit (– – –), , . Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally*.
Assessment Limit	Items requiring operations on fractions must adhere to the Assessment Limits for that operation's corresponding standard.
Calculator	No
Item Types	Equation Editor GRID Multiple Choice Multiselect Table Item
Context	Allowable

Sample Item	Item Type
A line plot with Kelly's lengths of ribbons is shown.  What is the total length, in inches, of the longest piece and shortest piece of ribbon?	Equation Editor
A line plot with Kelly's lengths of ribbons is shown. She adds another ribbon so that the difference between the longest ribbon and shortest ribbon is 1 inches.  What length of ribbon, in inches, could Kelly have added?	Equation Editor

Sample Item	Item Type

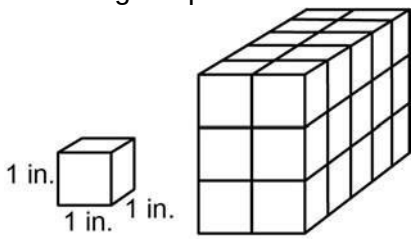
A line plot with Kelly's ribbon lengths is shown. She adds two more ribbons so that the total length of ribbon is 200 inches.  What are two possible lengths of ribbon, in inches, that Kelly could have added?	Equation Editor
See Appendix for the practice test item aligned to this standard.	

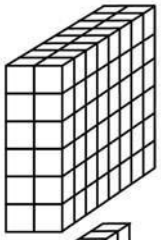
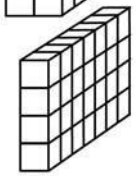
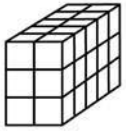
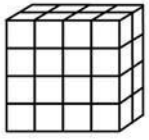
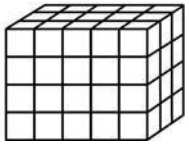
Content Standard	***MAFS.5.MD*** *Measurement and Data* ***MAFS.5.MD.3*** *Geometric measurement: understand concepts of volume and relate volume to multiplication and division.* **MAFS.5.MD.3.3** Recognize volume as an attribute of solid figures and understand concepts of volume measurement. **MAFS.5.MD.3.3a** A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume. **MAFS.5.MD.3.3b** A solid figure which can be packed without gaps or overlaps using *n* unit cubes is said to have a volume of *n* cubic units. Also Assesses: **MAFS.5.MD.3.4** Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
Assessment Limits	Items may contain right rectangular prisms with whole-number side lengths. Figures may only be shown with unit cubes. Labels may include cubic units (i.e. cubic centimeters, cubic feet, etc.) or exponential units (i.e., cm^3, ft^3, etc.). Items requiring measurement of volume by counting unit cubes must provide a key of the cubic unit.

Calculator	No
Item Types	Equation Editor Matching Item Multiple Choice Multiselect
Context	Allowable

Sample Item	Item Type
Ellen is shopping for boxes. Which measurement should she use to determine the amount the box will hold? A. Area B. Perimeter C. Length D. Volume	Multiple Choice

Sample Item	Item Type

A rectangular prism is shown.  What is the volume, in cubic inches (in.), of the rectangular prism?	Equation Editor

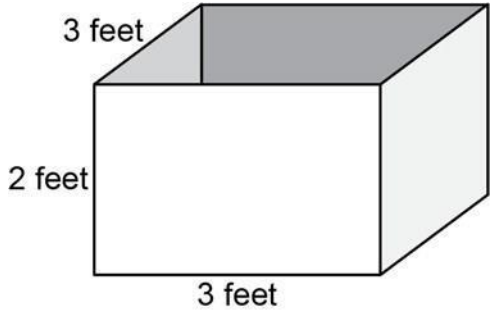
Which prisms have a volume between 20 and 40 cubic units? 1 in. 1 in. 1 in. ☐  ☐  ☐  ☐  ☐ 	Multiselect

See Appendix for the practice test item aligned to a standard in this group.

Content Standard	***MAFS.5.MD:*** *Measurement and Data* ***MAFS.5.MD.3*** *Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.* **MAFS.5.MD.3.5** Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. **MAFS.5.MD.3.5a** Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication. **MAFS.5.MD.3.5b** Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems. **MAFS.5.MD.3.5c** Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Assessment Limits	Items may not contain fraction or decimal dimensions or volumes. Items may contain no more than two non-overlapping prisms – non-overlapping means that two prisms may share a face, but they do not share the same volume. Items assessing MAFS.5.MD.3.5b may not contain the use or graphic of unit cubes. Items assessing MAFS.5.MD.3.5c must contain a graphic of the figures.
Calculator	No
Item Types	Equation Editor GRID Matching Item Multiple Choice Multiselect
Context	Allowable

Sample Item	Item Type

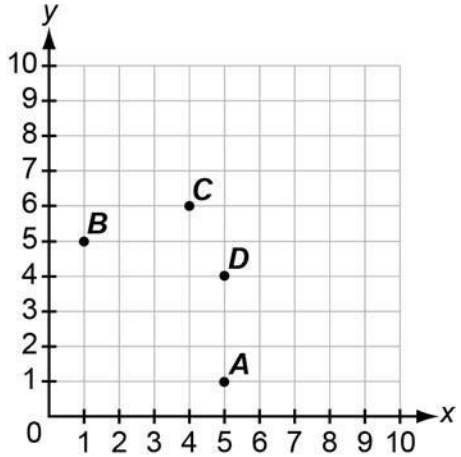
A shipping box in the shape of a rectangular prism has the dimensions shown.  What is the volume, in cubic feet, of the box?	Equation Editor
Select all the options that could be the dimensions of a rectangular prism with a ume of 384 cubic feet (ft). □ length: 6 ft, width: 8 ft, height: 8 ft □ length: 4 ft, width: 12 ft, height: 24 ft □ length: 4 ft, width: 6 ft, height: 16 ft □ length: 4 ft, width: 8 ft, height: 12 ft □ length: 3 ft, width: 10 ft, height: 20 ft	Multiselect
See Appendix for the practice test item aligned to a standard in this group.	

Content Standard	***MAFS.5.G*** *Geometry* ***MAFS.5.G.1*** *Graph points on the coordinate plane to solve real-world and mathematical problems.* **MAFS.5.G.1.1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate). Also Assesses: **MAFS.5.G.1.2** Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

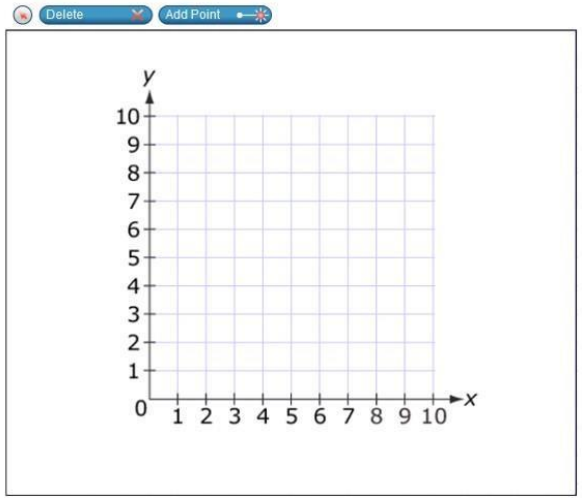
Assessment Limits	Items assessing MAFS.5.G.1.1 may not require directions between two given points. Points must rely on the origin. Items assessing MAFS.5.G.1.1 may require identifying the point (e.g., *Point A*) on a coordinate grid that represents a given ordered pair. Items assessing MAFS.5.G.1.1 may require determining the ordered pair that represents a given point on the coordinate plane. Items assessing MAFS.5.G.1.1 may not require graphing/plotting a point given an ordered pair. Points may only contain positive, whole number ordered pairs. Mathematical and real-world problems must have axes scaled to whole numbers (not letters).
Calculator	No
Item Types	Editing Task Choice Equation Editor GRID Hot Text Matching Item Multiple Choice Multiselect Open Response
Context	No context for MAFS 5.G.1.1; Allowable for MAFS.5.G.1.2

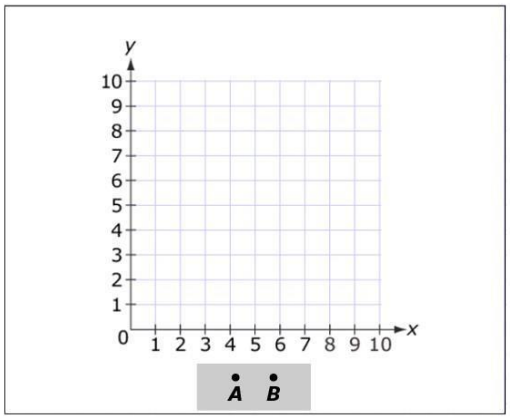
Sample Item	Item Type

Point *Z* is 3 units away from the origin on the *x*-axis. What could be the coordinates of point *Z*? A. (0, 3) B. (3, 0) C. (3, 3) D. (3, 6)	Multiple Choice
Point *M* is 3 units away from the origin along the *x*-axis, and 5 units away along the *y*-axis. What could be the coordinates of point *M*? A. (3, 5) B. (5, 3) C. (3, 8) D. (5, 8)	Multiple Choice

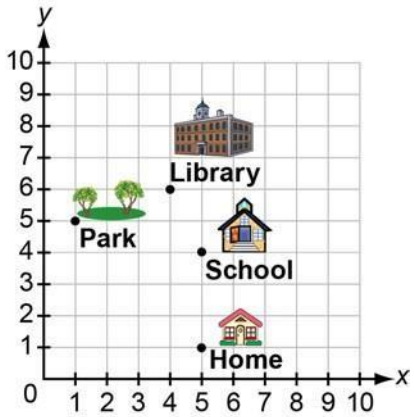
Which point is located at (5, 1) on the coordinate grid?  A. Point *A* B. Point *B* C. Point *C* D. Point *D*	Multiple Choice

Sample Item	Item Type

Use the Add Point tool to plot the point (3, 4). 	GRID

Point *A* has the coordinates (3, 5). Point *B* is located 5 units above point *A*. Drag points *A* and *B* to show their locations in the coordinate plane.  	GRID

Sample Item	Item Type

<table>
<tr>
<td> 

Which ways could he have traveled?

A. from home to the park
B. from the park to the library
C. from home to the library
D. from school to the park</td>
<td>Some locations in Lamar’s town are shown in the coordinate plane.

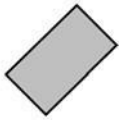
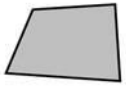
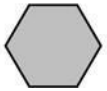
ın to another by traveling 1 unit left and 5 units up.</td>
<td>Multiple Choice</td>
</tr>
<tr>
<td colspan="3">See Appendix for the practice test items aligned to these standards.</td>
</tr>
</table>

Content Standard	***MAFS.5.G*** *Geometry* ***MAFS.5.G.2*** *Classify two-dimensional figures into categories based on their properties.* **MAFS.5.G.2.3** Understand that attributes belonging to a category of twodimensional figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.* Also Assesses: **MAFS.5.G.2.4** Classify and organize two-dimensional figures into Venn diagrams based on the attributes of the figures.
Assessment Limit	Attributes of figures may be given or presented within given graphics. Items that include trapezoids must consider both the inclusive and exclusive definitions. Items may not use the term "kite" but may include the figure.
Calculator	No
Item Types	Editing Task Choice GRID Hot Text Matching Item Multiple Choice Multiselect Open Response

Context	No context

Sample Item	Item Type
Select all the properties that both rectangles and parallelograms always share. □ 4 right angles □ 4 sides of equal length □ 2 pairs of parallel sides □ 2 pairs of sides with equal length □ 2 acute angles and 2 obtuse angles	Multiselect
Which kinds of shapes are always rectangles? A. Parallelograms B. Quadrilaterals C. Rhombuses D. Squares	Multiple Choice

Sample Item	Item Type

Select all the shapes that are also always parallelograms. □  □  □  □  □ 	Multiselect
Select all the names of figures that could also be classified as a rhombus. □ Parallelogram □ Square □ Rectangle □ Quadrilateral □ Triangle □	Multiselect
See Appendix for the practice test item aligned to a standard in this group.	

Appendix A

The chart below contains information about the standard alignment for the items in the Grade 5 Mathematics FSA Computer-Based Practice Test at http://fsassessments.org/studentsandfamilies/practice-tests/.

Content Standard	Item Type	Computer-Based Practice Test Item Number
MAFS.5.OA.1.1	Equation Editor	4
MAFS.5.OA.1.2	Equation Editor	8
MAFS.5.OA.2.3	Table Item	20
MAFS.5.NBT.1.1	Multiselect	19
MAFS.5.NBT.1.2	Multiselect	13
MAFS.5.NBT.1.3	Multiselect	22
MAFS.5.NBT.1.4	Matching Item	10
MAFS.5.NBT.2.5	Multiple Choice	1
MAFS.5.NBT.2.6	Multiple Choice	12
MAFS.5.NBT.2.7	Equation Editor	2
MAFS.5.NF.1.1	Equation Editor	14

MAFS.5.NF.1.2	Multiple Choice	11
MAFS.5.NF.2.3	Table Item	7
MAFS.5.NF.2.4b	Equation Editor	21
MAFS.5.NF.2.5	Multiselect	5
MAFS.5.NF.2.7	GRID	18
MAFS.5.MD.1.1	Equation Editor	17
MAFS.5.MD.2.2	Multiple Choice	3
MAFS.5.MD.3.3	Multiple Choice	23
MAFS.5.MD.3.5	GRID	16
MAFS.5.G.1.1	Open Response	15
MAFS.5.G.1.2	GRID	9
MAFS.5.G.2.3	GRID	6

Appendix B: Revisions

Page(s)	Revision	Date
10	Assessment limits and sample items revised.	May 2016

11	Item types revised.	May 2016
12-13	Assessment limits, item types, and sample items revised.	May 2016
14	Item types revised.	May 2016
15	Item types and sample items revised.	May 2016
16-17	Assessment limits revised.	May 2016
19	Item types revised.	May 2016
20	Sample items revised.	May 2016
21	Item types revised.	May 2016
22	Sample items revised.	May 2016
23-24	Item types revised.	May 2016
25	Item types revised.	May 2016
26-27	Assessment limits revised.	May 2016
28-29	Item types revised.	May 2016
32	Assessment limits and item types revised.	May 2016
33-34	Item types revised.	May 2016
35-36	Assessment limits revised.	May 2016
37-38	Corrected standard language for MAFS.5.MD.3.5b.	May 2016
39-42	Item types and sample items revised.	May 2016

43-44	Assessment limits, item types, and sample items revised.	May 2016
45	Appendix A added to show Practice Test information.	May 2016

FSA Mathematics Reference Sheet Packet

Grade 5 FSA Mathematics Reference Sheet

Customary Conversions

1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet
1 mile = 1,760 yards

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 pound = 16 ounces
1 ton = 2,000 pounds

Metric Conversions

1 meter = 100 centimeters
1 meter = 1000 millimeters
1 kilometer = 1000 meters

1 liter = 1000 milliliters

1 gram = 1000 milligrams
1 kilogram = 1000 grams

Time Conversions

1 minute = 60 seconds
1 hour = 60 minutes
1 day = 24 hours