

<div style="background-color: black; color: white; padding: 10px; font-size: 2em; font-weight: bold; display: inline-block;">1</div> Ratios, Rates, and Percents						Strategies											
						Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example		
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery												
Ratio and Rate Reasoning	Understanding Ratio Relationships	Students develop conceptual understanding of ratio, the multiplicative nature of ratios, the different notation used for ratio, and part-to-part versus part-to-whole ratios.	6.4.A	✓								•	•			•	
	Equivalent Ratios	Students use a double number line to determine equivalent ratios. Then, they move to tables and scaling up and down to determine equivalent ratios.	6.5.A	✓												•	
	Multiple Representations of Ratios	Students add to their list of strategies for determining equivalent ratios by examining equivalent ratios on a coordinate grid. A key understanding in this section is that either quantity can be graphed on either axis; neither quantity is dependent on the other.	6.5.A	✓			•						•	•			
	Fractional Rates	Students determine fractional unit rates and unit rates given complex ratios. They solve problems involving fractional rates by scaling up and down within ratio tables.	6.4.D	✓												•	•
	Determining and Comparing Unit Rates	Students develop fluency in determining and comparing unit rates.	6.4.D		✓											•	
Problem Solving Using Ratio and Rate Reasoning	Problem Solving with Equivalent Ratios and Rates using Tables	Students use a table to solve problems involving equivalent ratios and rates.	6.5.A		✓											•	
	Problem Solving with Equivalent Ratios and Rates using Double Number Lines	Students use a double number line to solve problems involving equivalent ratios and rates.	6.5.A		✓						•					•	
	Problem Solving with Equivalent Ratios and Rates using Graphs	Students use a graph to solve problems involving equivalent ratios and rates.	6.5.A		✓						•					•	
Introduction to Percent	Percent Models	Students watch animations and answer questions about percent models. They write fractional and decimal equivalents of percent models. Students estimate percents using models. They relate benchmark percents and fractions.	6.4.E 6.4.F	✓								•				•	

1		Ratios, Rates, and Percents				Strategies											
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MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery												
Introduction to Percent (continued)	Fraction, Decimal, Percent Conversions	Students convert between fractions, decimals, and percents. They use the equivalent representations to answer comparison questions.	6.4.E	✓													
	Determining a Part Given a Percent and a Whole	Students solve real-world percent problems by using bar models, using equivalent fractions, and determining a fraction of a quantity. The problems involve determining a part given the whole and a percent.	6.4.F	✓													
	Determining a Whole Given a Percent and a Part	Students solve real-world ratio problems using equivalent fractions and models. The problems involve determining the whole given a part and a percent.	6.4.F	✓													

2		Numeric and Algebraic Expressions				Strategies											
						Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example		
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery												
Number Properties	Commutative and Associative Properties	Students follow worked examples to rewrite expressions using the commutative and associative properties of addition and multiplication.	6.7.A	✓													•
	Evaluating One-Step Expressions with Whole Numbers	Students determine relevant information from scenarios and use this information to evaluate algebraic expressions with a single operation.	6.7.A		✓											•	•
	Evaluating Two-Step Expressions with Whole Numbers	Students determine relevant information from scenarios and use this information to evaluate algebraic expressions with two operations.	6.7.A		✓											•	•
	Writing and Evaluating Exponent Expressions	Students watch an animation showing how an expression with an exponent can be rewritten as a product. Students identify the base and exponent and describe their meaning in exponent expressions. Students rewrite exponent expressions as single values and rewrite products as exponent expressions.	6.7.A	✓		•	•				•						
	Order of Operations	Students learn about the precedence of different operations through manipulating spacing within expressions.	6.7.A	✓		•											•
	Applying the Order of Operations	Students practice rewriting expressions using the Order of Operations. Students sort the steps of rewriting numeric expressions.	6.7.A	✓			•										
	Using Order of Operations to Evaluate Simple Numeric Expressions	Students practice evaluating two-step numeric expressions.	6.7.A		✓												•
	Using Order of Operations to Evaluate Numeric Expressions with Four Operations	Students practice evaluating multi-step numeric expressions.	6.7.A		✓												•
	Using Order of Operations to Evaluate Numeric Expressions with Parentheses and Exponents	Students practice evaluating numeric expressions that contain parentheses and exponents.	6.7.A		✓												•
	Using Order of Operations to Evaluate Numeric Expressions	Students practice evaluating a variety of numeric expressions.	6.7.A		✓												•

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MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery											
Number Properties (continued)	Exploring the Distributive Property with Numeric Expressions	Students explore modeling the Distributive Property of multiplication over addition with numeric expressions using an interactive grid.	6.7.A	✓			•	•								
	Using the Distributive Property with Numeric Expressions	Students practice applying different distributive properties (multiplication over addition, division over addition) to rewrite numeric expressions and calculate efficiently.	6.7.A	✓			•									
Algebraic Expressions	Identifying Parts of Simple Algebraic Expressions	Students identify the parts of simple algebraic expressions, including terms, coefficients, sums, factors, products, differences, and quotients.	6.7.A	✓			•									•
	Evaluating Multi-Step Expressions	Students determine relevant information from scenarios and use this information to evaluate algebraic expressions with one or more than one operation.	6.7.A		✓								•	•		
	Evaluating Expressions with Multiple Variables	Students determine relevant information from scenarios and use this information to evaluate algebraic expressions with multiple variables.	6.7.A		✓								•	•		
Equivalent Algebraic Expressions	Modeling Equivalent Algebraic Expressions	Students use an explore tool to model algebraic expressions. They use the interactive tool to create and identify equivalent expressions.	6.7.C	✓			•	•					•			
	Exploring the Distributive Property with Algebraic Expressions	Students use an interactive tool to explore the Distributive Property with algebraic expressions. They apply the properties of operations to generate equivalent expressions.	6.7.D	✓				•								
	Using Order of Operations to Rewrite Simple Algebraic Expressions	Students rewrite algebraic expressions by combining like terms, using number properties, and applying the Order of Operations.	6.7.D		✓										•	
	Using Order of Operations to Rewrite Algebraic Expressions with Four Operations	Students rewrite multi-step algebraic expressions by combining like terms, using number properties, and applying the Order of Operations.	6.7.D		✓										•	

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MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery											
Equivalent Algebraic Expressions (continued)	Using Order of Operations to Rewrite Algebraic Expressions with Parentheses and Exponents	Students rewrite algebraic expressions involving parentheses and exponents by combining like terms, using number properties, and applying the Order of Operations.	6.7.D		✓										•	
	Using Order of Operations to Rewrite Algebraic Expressions	Students rewrite a variety of algebraic expressions by combining like terms, using number properties, and applying the Order of Operations.	6.7.D		✓										•	

<div style="background-color: black; color: white; padding: 5px; font-size: 24px; font-weight: bold; display: inline-block;">3</div> <div style="background-color: #00AEEF; color: white; padding: 10px; font-size: 24px; font-weight: bold; display: inline-block;">One-Step Equations and Inequalities</div>						Strategies											
						Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example		
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery												
Reasoning with Expressions and Equations	Using Picture Algebra with Addition, Subtraction, and Multiplication	Students use pictures to represent relationships between two quantities. The relationships may involve addition, subtraction, or multiplication.	6.10.A		✓										•		
	Using Picture Algebra with Multiplication, Total Given	Students use pictures to represent multiplicative relationships between two quantities.	6.10.A		✓										•		
	Using Picture Algebra with Addition and Subtraction, Total Given	Students use pictures to represent additive relationships between two quantities.	6.10.A		✓										•		
	Patterns and One-Step Expressions	Students make tables of values by determining outputs from given inputs. They will use the tables to determine algebraic expressions for the relationships between two quantities.	6.9.A		✓						•			•			
Solving One-Step Equations	Using Substitution to Identify Solutions to Equations	Students determine which given values for a variable are solutions to an equation.	6.10.B	✓		•								•		•	
	Solving One-Step Equations with a Balance	Students use an interactive balance to explore representing and solving one-step addition and multiplication equations. Students are encouraged to determine solutions using the interactive model.	6.10.A	✓					•								
	Representing One-Step Equations	Students examine worked examples and answer questions about using inverse operations to solve one-step addition and multiplication equations.	6.10.A	✓					•								•
	Solving with Addition and Subtraction (No Type In)	Students use an equation solver to solve one-step equations involving addition and subtraction.	6.10.A		✓											•	
	Solving with Multiplication and Division (No Type In)	Students use an equation solver and inverse operations to solve one-step equations involving multiplication and division.	6.10.A		✓											•	
	Solving One-Step Equations (Type In)	Students use an equation solver and inverse operations to solve a variety of one-step equations.	6.10.A		✓											•	

3		One-Step Equations and Inequalities				Strategies										
						Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example	
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery											
Solving One-Step Inequalities	Graphing Inequalities with Positive Rational Numbers	Given simple verbal inequality statements, students represent the inequalities in symbols and on number lines. They will determine if given values are solutions to the inequalities.	6.2.B		✓				•							
	Using Substitution to Identify Solutions to Inequalities	Students determine which given values for a variable are solutions to an inequality.	6.10.B	✓		•										•
	Solving One-Step Linear Inequalities	Students solve one-step inequalities algebraically. The inequalities include all four operations but are restricted to positive integers.	6.9.B		✓				•							•
Problem Solving with One-Step Equations	Modeling Scenarios with Equations	Students interpret the model of a one-step linear equation in the context of a scenario. They identify independent and dependent quantities and units from scenarios, tables, and graphs.	6.6.A 6.6.B	✓							•		•			•
	Analyzing Models of One-Step Linear Relationships	Students analyze scenarios of one-step linear relationships. They are given an equation that models the scenario. Students then match the different expressions in the equation to verbal descriptions of these quantities in the context of the scenario.	6.6.C		✓		•						•			
	Patterns and One-Step Equations	Students make tables of values by determining inputs and outputs from given values. They use the tables to determine algebraic expressions for the relationships between two quantities.	6.6.C		✓						•		•			
	Problem Solving Using Multiple Representations in the First Quadrant	Students create tables of values, write and use algebraic expressions with one operation, and create graphs to represent problem scenarios.	6.6.C		✓				•		•		•			
	Problem Solving with Decimals	Students create tables of values, write and use algebraic expressions with decimals, and create graphs to represent problem scenarios.	6.6.C		✓				•		•		•			

4		Negative Numbers and the Four Quadrants				Strategies										
						Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example	
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery											
Integers	Introduction to Negative Numbers	Students learn about numbers and their opposites by watching an animation and answering questions.	6.2.B	✓		•									•	•
	Representing Integers on Number Lines	Students explore integer opposites and inequality statements and relationships involving integers through an interactive tool.	6.2.B	✓			•	•								
	Classifying Rational Numbers	Students write numbers in the form a/b to explore rational numbers. They interpret a Venn diagram showing the relationship of rational numbers, integers, and whole numbers. Finally, students classify rational numbers using the Venn diagram.	6.2.A	✓												
	Using Absolute Value	Students develop an understanding of absolute value as the distance of a number from 0 by watching an animation and answering questions. Students explore this concept in mathematical and real-world situations.	6.2.C	✓		•									•	•
	Graphing Inequalities with Rational Numbers	Students graph simple inequalities involving rational numbers on a number line.	6.2.B		✓				•							
Integer Operations	Understanding Opposites	Students watch an animation that introduces opposite values and describes how opposite values on a number line have the same absolute value. The animation explains why direction and the meaning of 0 are important when thinking about opposite quantities in situations. Students determine the opposites of numbers, show that the sum of a number and its opposite is 0, and use what they know about opposites to add positive and negative numbers in context.	6.2.B	✓		•								•		
	Adding and Subtracting Negative Integers	Students use an interactive number line to add and subtract negative numbers.	6.3.C	✓				•								
	Using Number Lines to Add and Subtract Integers	Students practice adding and subtracting on number lines using a similar model to the one they used on the interactive number line.	6.3.C		✓				•					•		

4		Negative Numbers and the Four Quadrants				Strategies									
						Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery										
Integer Operations (continued)	Developing Algorithms for Adding or Subtracting Integers	Students connect number line models of sums of integers with the same sign to an algorithm for adding integers with the same sign. They do the same for the sums of integers with different signs. Students then notice that the models for subtracting integers are the same as the models for adding the opposite of the number. They rewrite subtraction expressions as addition expressions and use the rules for adding integers to determine the sum.	6.3.C	✓											
	Multiplying and Dividing Integers	Students model problems involving the multiplication of integers and use fact families to explore dividing integers.	6.3.C	✓		•									•
	Evaluating Simple Numeric Expressions with Integers	Students practice evaluating two-step numeric expressions that contain integer values.	6.3.D 6.7.D		✓										•
	Evaluating Numeric Expressions Involving Integers with Parentheses and Exponents	Students practice evaluating numeric expressions that contain integer values, parentheses, and exponents.	6.3.D 6.7.D		✓								•	•	
	Evaluating Simple Numeric Expressions with Rational Numbers	Students practice evaluating a variety of simple numeric expressions that contain integer values.	6.3.D 6.7.D		✓										•
	Evaluating Complex Numeric Expressions with Rational Numbers	Students practice evaluating a variety of complex numeric expressions that contain integer values.	6.3.D 6.7.D		✓										•
3 Variable Expressions	Factoring Linear Expressions	Students model the product of two factors and explore different factors of expressions through the use of an interactive tool. They use the Distributive Property in reverse to factor expressions.	6.7.D	✓		•									
	Rewriting Simple Algebraic Expressions Involving Integer Coefficients	Students rewrite algebraic expressions that contain integer coefficients by combining like terms, using number properties, and applying the Order of Operations.	6.7.D		✓										•

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						Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example	
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery											
3 Variable Expressions (continued)	Rewriting Algebraic Expressions Involving Integer Coefficients with Four Operations	Students rewrite multi-step algebraic expressions that contain integer coefficients by combining like terms, using number properties, and applying the Order of Operations.	6.7.D		✓											•
	Rewriting Algebraic Expressions Involving Integer Coefficients with Parentheses and Exponents	Students rewrite algebraic expressions that contain integer coefficients, parentheses, and exponents by combining like terms, using number properties, and applying the Order of Operations.	6.7.D		✓											•
	Rewriting Complex Algebraic Expressions Involving Integer Coefficients	Students rewrite complex algebraic expressions that contain integer coefficients by combining like terms, using number properties, and applying the Order of Operations.	6.7.D		✓											•
	Rewriting Algebraic Expressions Involving Integer Coefficients	Students rewrite a variety of algebraic expressions that contain integer coefficients by combining like terms, using number properties, and applying the Order of Operations.	6.7.D		✓											•
The Coordinate Plane	Exploring Symmetry on the Coordinate Plane	Students reflect points across the x-axis, across the y-axis, and across both axes using an interactive grapher and consider the impact on the ordered pairs.	6.11	✓			•	•								
	Identifying and Interpreting Ordered Pairs	Students analyze worked examples and answer questions about points on the coordinate plane in mathematical and real-world contexts.	6.11	✓										•		•
	Plotting Points	Students identify the coordinates of plotted points and sort the points according to their quadrant location.	6.11	✓			•									
	Drawing Polygons on the Coordinate Plane	Students use the interactive grapher to identify vertices of polygons on the coordinate plane and write the coordinates. They determine the horizontal or vertical side lengths of polygons on the coordinate plane.	6.11	✓					•					•		•

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						Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example	
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery											
Multiple Representations	Writing an Expression from a Scenario, Table, or Graph	Students match a scenario to an expression that represents the dependent quantity. They complete a table of values given a scenario. Given a table of values, students identify the relationship between the quantities and write an expression to model the independent quantity. Students analyze the relationships in a graph. They use the relationship between the quantities in a graph to write an expression to model the independent quantity.	6.6.C	✓			•				•		•			•
	Solving One-Step Equations Using Multiple Representations in Four Quadrants	Students will create tables of values, write algebraic expressions with one operation, and create graphs to represent and answer questions about problem scenarios.	6.6.C		✓				•		•		•			

5 Geometric Measurement		Strategies													
		Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example				
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery										
Ratio Reasoning to Convert Units	Converting Within Systems	Students use ratios and dimensional analysis to perform one-step measurement conversions within the Customary and metric measurement systems.	6.4.H	✓											•
Angles and Triangles	Introduction to Triangle Sum and Exterior Angle Theorems	Students are informally introduced to the Triangle Sum Theorem. They derive the Exterior Angle Theorem using the Triangle Sum Theorem and substitution. Students use these theorems to determine unknown angle measures on the interior and exterior of triangles.	6.8.A	✓											•
Area	Developing Area Formulas	Students watch animations and answer questions to derive the formulas used to calculate the areas of parallelograms, triangles, and trapezoids. They use the formulas to represent area problems as equations using given dimensions in real-world scenarios.	6.8.B 6.8.C	✓		•					•		•		
	Calculating Area of Various Figures	Students calculate the areas of parallelograms, trapezoids, and triangles in mathematical and real-world situation.	6.8.D		✓						•		•	•	
	Solving Area Problems	Students use the areas of rectangles and triangles to solve area problems with composite figures.	6.8.B 6.8.C	✓											
	Calculating Area of Composite Figures	Students practice calculating the area of various mathematical and real-world composite figures.	6.8.D		✓						•		•		
Volume of Prisms	Determining Volume Using Unit Fraction Cubes	Students watch an animation, which provides an example of how to determine the unit fraction dimensions of a cube to fill a rectangular prism with fractional edge lengths. Students determine the volumes of various rectangular prisms with different fractional edge lengths.	6.8.D	✓		•									

5		Geometric Measurement				Strategies										
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Volume of Prisms (continued)	Understanding Volume Formulas for Right Prisms	Students relate the variables in the volume formula for a right prism to measurements shown in a diagram. of a triangular prism. They map the parts of a triangular prism to the variables in the volume formula for a right prism. They then reason about how to determine an unknown measurement of a triangular prism given its volume.	6.8.C 6.8.D													
	Calculating Volume of Right Prisms	Students determine the volume of right prisms.	6.8.D		✓						•		•		•	

6		Measures of Central Tendency and Data				Strategies										
						Animations	Classifications	Explore Tools	Graphing Tools	Interactive Diagrams	Interactive Worksheets	Proof	Real-World Scenarios	Solvers	Worked Example	
MATHia Unit	MATHia Workspace	Overview	TEKS	Concept Builder	Mastery											
Measures of Central Tendency	Calculating Mean, Median, Mode, and Range	Students calculate the mean, median, mode, and range from data sets.	6.12.C		✓											
	Determining Measures of Center	Students use their understanding of mean, median, and mode to determine which was used as the measure of central tendency.	6.12.C		✓											
	Measuring the Effects of Changing Data Sets	Students calculate mean and median, with and without an additional data value, and compare the original and adjusted measures.	6.12.C		✓											
Displays of Numerical Data	Analyzing Distributions with Shape, Center, and Spread	Students watch an animation which describes what a statistical question is and how to analyze data sets according to their center, spread, and overall shape. Students learn about gaps, clusters, peaks, and skew and use these terms to analyze a data set.	6.12.B	✓		•	•							•		
	Creating and Interpreting Stem Plots	Students interpret, create, and analyze stem-and-leaf plots as they learn about the features of the plot type. Students summarize and describe the displays according to shape and numerical summaries.	6.12.A 6.13.A	✓										•		
	Creating and Interpreting Dot Plots	Students interpret, create, and analyze dot plots as they learn about the features of the plot type. Students summarize and describe the displays according to shape and numerical summaries.	6.12.A 6.13.A	✓										•		
	Creating and Interpreting Histograms	Students watch an animation as they learn how to create a histogram. They also engage with an Explore tool to determine the effect of changing the bin size of a histogram. Students summarize and describe the displays according to shape.	6.12.A 6.13.A	✓		•	•	•			•			•		
Box Plots	Constructing Box Plots	Students examine how to construct box-and-whisker plots and connect the plot to the five-number summary. They use an Explore Tool to construct their own box-and-whisker plots and answer questions about the plots.	6.12.A 6.12.C	✓										•		

6		Measures of Central Tendency and Data				Strategies										
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Box Plots (continued)	Interpreting Box Plots	Students analyze vertical and horizontal box-and-whisker plots to understand the relationship between the shape of the display and the spread of the data set.	6.12.A 6.12.C 6.13.A	✓			•							•		
	Choosing Appropriate Measures	Students relate the choice of measures of center and variability to the shape of the data distribution. They compare data sets using the appropriate measures of center and variability.	6.12.A 6.12.C	✓										•		•