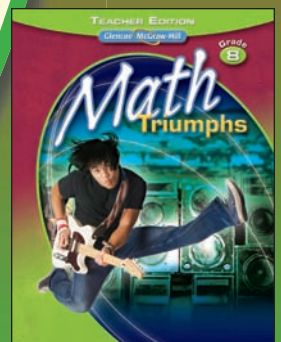
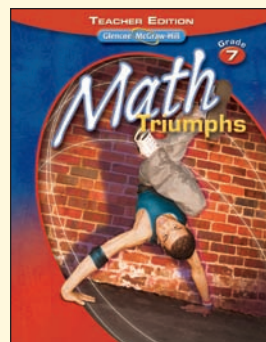
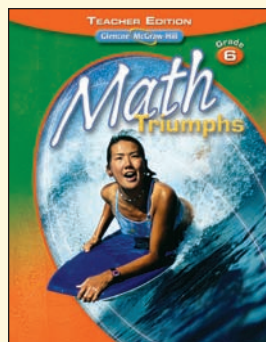
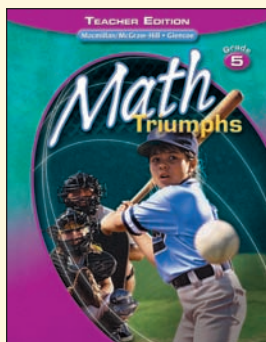
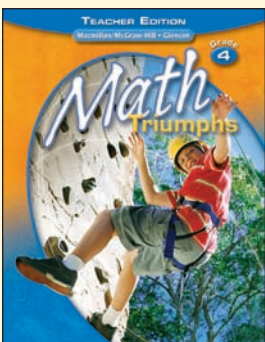
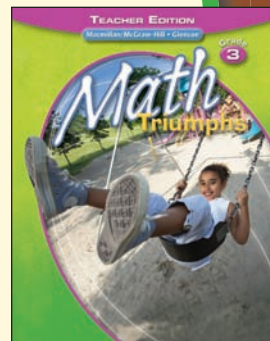
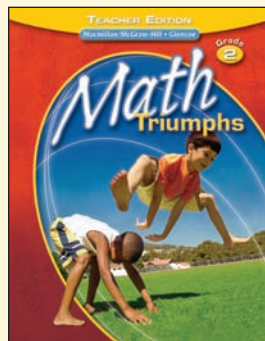
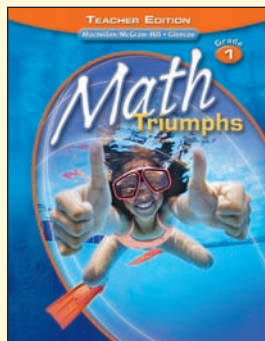
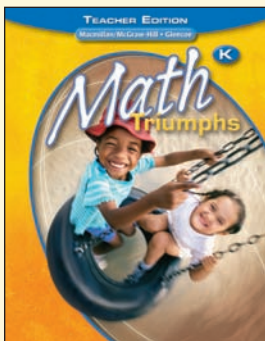


Math Triumphs

NCTM Focal Point Alignments Grades K-8



Grade K NCTM Focal Points Alignment

Math Triumphs, Grade K provides the prerequisite concepts and skills necessary for success with the Grade K NCTM Focal Points. Horizontal alignment ensures successful transitions between *Math Connects* and *Math Triumphs*.

Preparation for NCTM Grade K Focal Points	<i>Math Triumphs</i> , Grade K	Targeted Prerequisite Skills and Concepts	Preparation for <i>Math Connects</i> , Grade K
Focal Point 1 Number and Operations <i>Math Triumphs</i> Section 1	Chapter 1 Represent Whole Numbers	Count verbally to 10. Count structured arrangements of objects to 10.	Chapter 2 Chapter 4 Chapter 6 Chapter 8
	Chapter 2 Compare and Order Whole Numbers	Make accurate comparisons via counting, but only when objects are about the same size and groups are small.	Chapter 2 Chapter 4 Chapter 6 Chapter 8
	Chapter 3 Introduction to Addition	Find sums for joining sets up to sums of 9 by counting with objects.	Chapter 11
	Chapter 4 Introduction to Subtraction	Find differences for separating sets with subtrahends up to 9 by counting with all objects.	Chapter 12
Focal Point 2 Geometry <i>Math Triumphs</i> Section 2	Chapter 5 Two-Dimensional Figures	Recognize and name the basic shapes, such as circle, square, triangle, and rectangle.	Chapter 10
	Chapter 6 Three-Dimensional Figures	Relate plane and solid figures.	Chapter 10
	Chapter 7 Space and Position	Describe the relative position of objects using appropriate vocabulary terms. Recognize and identify a shape after a simple turn or translation.	Chapter 3 Chapter 10
Focal Point 3 Measurement <i>Math Triumphs</i> Section 3	Chapter 8 Sort Objects by Attributes	Identify objects and sets of objects by amount, size, shape, or color.	Chapter 1 Chapter 5
	Chapter 9 Order Objects by Attributes	Identify objects by size, shape, or color.	Chapter 1 Chapter 7
	Chapter 10 Patterns	Identify and duplicate a simple pattern.	Chapter 3 Chapter 9

For a complete correlation to the NCTM Curriculum Focal Points, go to www.macmillanmh.com and select **Math**, then **Teacher View**. The complete Curriculum Focal Points may be viewed at www.nctm.org/focalpoints.

Grade 1 NCTM Focal Points Alignment

Math Triumphs, Grade 1 provides the prerequisite concepts and skills necessary for success with the Grade 1 NCTM Focal Points. Horizontal alignment ensures successful transitions between *Math Connects* and *Math Triumphs*.

Preparation for NCTM Grade 1 Focal Points	<i>Math Triumphs</i> , Grade 1	Targeted Prerequisite Skills and Concepts	Preparation for <i>Math Connects</i> , Grade 1
Focal Point 1 Number and Operations and Algebra <i>Math Triumphs</i> Section 1	Chapter 1 Addition Strategies and Facts	Join and create sets with sums up to 20.	Chapters 2, 4, 5, 7, 10, and 15
		Count on using a number line.	
		Add like sets: join doubles.	
	Chapter 2 Subtraction Strategies and Facts	Separate sets with subtrahends up to 20.	Chapters 3, 4, 6, 7, 10, and 15
		Count back using a number line.	
		Use fact families to relate addition and subtraction.	
	Chapter 3 Addition and Subtraction Using Place Value	Use number patterns to subtract.	
		Use place value and other number patterns to add and subtract.	Chapters 10, 13, and 15
Focal Point 2 Number and Operations <i>Math Triumphs</i> Section 2	Chapter 4 Understand Whole Numbers	Name, recognize, and count numbers to 20.	Chapters 1, 4, 7 and 8
		Recognize and use number patterns.	
	Chapter 5 Place Value	Name, recognize, and count numbers and sets to 50.	Chapters 1, 11, and 13
		Identify pennies and dimes.	
		Count and solve problems using pennies and dimes.	
	Chapter 6 Compare and Order Whole Numbers	Compare and order whole numbers to 100.	Chapters 1, 8, 9 and 13
		Estimate a collection.	
	Chapter 7 Two-Dimensional Figures	Recognize and name the basic figures, such as circle, square, triangle, and rectangle.	Chapters 12 and 14
		Identify and compare the attributes of different two-dimensional figures and objects.	
		Compare two halves of a figure or real-world object to determine if an object exemplifies symmetry.	
Focal Point 3 Geometry <i>Math Triumphs</i> Section 3	Chapter 8 Three-Dimensional Figures	Recognize and name the basic figures, such as cube, sphere, cylinder, and rectangular prism.	Chapter 12
		Identify and compare the attributes of different three-dimensional figures and objects.	
	Chapter 9 Patterns	Compose new figures using two- and three-dimensional figures.	Chapters 1 and 12
		Identify, duplicate, and extend simple patterns.	

Grade 2 NCTM Focal Points Alignment

Math Triumphs, Grade 2 provides the prerequisite concepts and skills necessary for success with the Grade 2 NCTM Focal Points. Horizontal alignment ensures successful transitions between *Math Connects* and *Math Triumphs*.

Preparation for NCTM Grade 2 Focal Points		Math Triumphs, Grade 2	Targeted Prerequisite Skills and Concepts	Preparation for Math Connects Grade 2
Focal Point 1 Number and Operations Math Triumphs Book 1	Chapter 1 Whole Numbers	Understand and represent whole numbers.	Chapter 1	
		Identify, describe, and apply number patterns.	Chapter 1	
		Combine and add sets.	Chapter 1 and 2	
		Understand whole number relationships.	Chapter 1, 2 and 3	
		Count numbers and use a number line or scale.	Chapter 1, 2 and 3	
	Chapter 2 Place Value	Understand place value to 1,000.	Chapter 1 and 10	
		Round whole numbers.	Chapter 1	
	Chapter 3 Compare and Order Whole Numbers	Compare and order whole numbers.	Chapter 1	
	Focal Point 2 Number and Operations and Algebra Math Triumphs Book 2	Chapter 4 Addition and Subtraction	Combine and add sets.	Chapter 2
Understand addition and strategies for basic addition and subtraction facts.			Chapters 2, 3, 5 and 6	
Chapter 5 Addition Concepts		Identify, describe, and apply number patterns.	Chapter 1	
		Understand addition and strategies for addition.	Chapters 2, 5, 7 and 14	
		Estimate sums.	Chapter 5	
Chapter 6 Subtraction Concepts		Identify, describe, and apply number patterns.	Chapter 1	
		Understand subtraction and strategies for subtraction.	Chapter 3, 6, 7 and 14	
		Estimate differences.	Chapter 6	
Focal Point 3 Measurement Math Triumphs Book 3		Chapter 7 Introduction to Measurement	Understand measurement and data analysis.	Chapter 4, 12 and 13
	Compare the lengths of objects using direct and indirect measurements.		Chapter 12 and 13	
	Chapter 8 Linear Measurement	Compare the lengths of objects using direct and indirect measurements.	Chapter 12 and 13	
	Chapter 9 Measurements and Figures	Identify and describe figures.	Chapter 11	
		Compose and decompose geometric shapes.	Chapter 11	
		Compare shapes and sizes of figures.	Chapter 11	

Grade 3 NCTM Focal Points Alignment

Math Triumphs, Grade 3 provides the prerequisite concepts and skills necessary for success with the Grade 3 NCTM Focal Points. Horizontal alignment ensures successful transitions between *Math Connects* and *Math Triumphs*.

Preparation for NCTM Grade 3 Focal Points	<i>Math Triumphs</i> , Grade 3	Targeted Prerequisite Skills and Concepts	Preparation for <i>Math Connects</i> , Grade 3
Focal Point 1 Number and Operations and Algebra <i>Math Triumphs Book 1</i>	Chapter 1 Addition and Subtraction	Understand whole number relationships.	Chapter 1
		Understand addition and subtraction and strategies for basic addition and subtraction facts.	Chapters 2 and 3
		Understand regrouping in addition and subtraction.	Chapters 2 and 3
	Chapter 2 Introduction to Multiplication	Understand multiplication and basic multiplication facts.	Chapters 4 and 5
		Represent the concept of multiplication as repeated addition.	Chapter 4
		Use models, arrays, patterns, tables, and sequences to show multiplication.	Chapters 4, 5, and 15
	Chapter 3 Introduction to Division	Relate division and multiplication.	Chapter 6
		Represent the concept of division as repeated subtraction.	Chapter 6
		Use models and arrays to show division.	Chapters 6 and 7
		Understand basic division facts.	Chapters 6 and 7
Focal Point 2 Number and Operations <i>Math Triumphs Book 2</i>	Chapter 4 Place Value	Count to 100.	Chapter 1
		Recognize whole numbers up to 10,000.	Chapter 1
		Round whole numbers.	Chapter 1
	Chapter 5 Fractions	Model and develop an understanding of fractions.	Chapters 13 and 14
		Understand part of a whole and part of a set.	Chapter 13
	Chapter 6 Fraction Equivalence	Understand equivalent fractions.	Chapter 13
		Compare fractions.	Chapter 13
		Understand common numerators and denominators.	Chapter 13
Focal Point 3 Geometry <i>Math Triumphs Book 3</i>	Chapter 7 Geometry	Recognize two-dimensional and three-dimensional figures.	Chapters 11
		Develop an understanding of faces, edges, sides, and vertices.	Chapter 11
	Chapter 8 Measurement and Geometry	Compare the lengths of objects using direct and indirect measurement.	Chapter 9
		Compare shapes and sizes of figures.	Chapter 11
		Recognize congruent figures and symmetric figures.	Chapter 11
	Chapter 9 Data Analysis	Sort objects and data by common attributes and describe the categories.	Chapter 12
		Construct and analyze tables, bar graphs, picture graphs, and line graphs.	Chapter 12

Grade 4 NCTM Focal Points Alignment

Math Triumphs, Grade 4 provides the prerequisite concepts and skills necessary for success with the Grade 4 NCTM Focal Points. Horizontal alignment ensures successful transitions between Math Connects and Math Triumphs.

Preparation for NCTM Grade 4 Focal Points	Math Triumphs, Grade 4	Targeted Prerequisite Skills and Concepts	Preparation for Math Connects, Grade 4
Focal Point 1 Number and Operations and Algebra <i>Math Triumphs Book 1</i>	Chapter 1 Place Value and Patterns	Compare and order whole numbers.	Chapters 1 and 3
		Add and subtract whole numbers.	Chapter 2
		Identify and use basic patterns and sequences.	Chapter 5
	Chapter 2 Multiplication	Understand basic multiplication and repeated addition. Add and multiply whole numbers.	Chapter 4
	Chapter 3 More Multiplication	Use patterns and sequences in multiplication.	Chapters 4, 6, and 7
		Round whole numbers to estimate products.	Chapters 6 and 7
	Chapter 4 Introduction to Division	Understand basic division.	Chapter 4
		Use patterns and sequences in division.	Chapters 4 and 8
Focal Point 2 Number and Operations <i>Math Triumphs Book 2</i>	Chapter 5 Fractions	Understand parts of a whole and parts of a set.	Chapter 13
		Write factors of a number.	Chapter 4
		Understand and use equivalent fractions.	Chapter 13
		Compare and order fractions.	Chapter 13
	Chapter 6 Decimals	Understand place value through the hundredths.	Chapter 14
		Compare and order decimals.	Chapter 14
		Round decimals. Add and subtract decimals.	Chapter 15
	Chapter 7 Fractions and Decimals	Understand fractions and decimal equivalents.	Chapter 14
Focal Point 3 Measurement <i>Math Triumphs Book 3</i>	Chapter 8 Geometry and Measurement	Recognize two-dimensional and three-dimensional figures.	Chapter 9
		Understand units of measure.	Chapters 11 and 12
		Understand perimeter.	Chapter 11
	Chapter 9 Area	Recognize two-dimensional figures.	Chapter 9
		Understand area.	Chapter 11
	Chapter 10 Spatial Reasoning	Demonstrate the decomposing and composing of figures. Recognize congruent figures.	Chapter 10

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Grade 5 NCTM Focal Points Alignment

Math Triumphs, Grade 5 provides the prerequisite concepts and skills necessary for success with the Grade 5 NCTM Focal Points. Horizontal alignment ensures successful transitions between Math Connects and Math Triumphs.

Preparation for NCTM Grade 5 Focal Points	Math Triumphs, Grade 5	Targeted Prerequisite Skills and Concepts	Preparation for Math Connects, Grade 5
Focal Point 1 Number and Operations and Algebra <i>Math Triumphs Book 1</i>	Chapter 1 Place Value and Number Relationships	Compare and order whole numbers.	Chapter 1
		Add and subtract whole numbers.	Chapter 2
		Identify and use basic patterns and sequences.	Chapters 6 and 7
	Chapter 2 Multiplication	Understand basic multiplication and repeated addition.	Chapter 3
		Use patterns and sequences.	Chapter 3
		Add and multiply whole numbers.	Chapter 3
	Chapter 3 Division	Understand basic division and repeated subtraction.	Chapter 4
		Use patterns and sequences.	Chapter 4
		Subtract and divide numbers.	Chapter 4
	Chapter 4 Properties of Operations	Add, subtract, multiply, and divide whole numbers.	Chapters 3 and 5
Focal Point 2 Number and Operations <i>Math Triumphs Book 2</i>	Chapter 5 Fractions	Understand basic division.	Chapter 8
		Understand parts of whole, parts of a set.	Chapters 8, 9, and 15
	Chapter 6 Add and Subtract Fractions	Understand and use equivalent fractions.	Chapter 10
		Use factors and multiples of numbers to add and subtract fractions.	Chapter 10
	Chapter 7 Decimals	Understand place value through the thousandths.	Chapters 1 and 2
Focal Point 3 Geometry, Measurement, and Algebra <i>Math Triumphs Book 3</i>	Chapter 8 Geometry	Recognize two-dimensional and three-dimensional figures.	Chapters 13 and 14
	Chapter 9 Area	Add and multiply whole numbers.	Chapter 14
	Chapter 10 Surface Area, Volume, and Measurement	Understand units of measure. Use area to understand surface area. Understand volume.	Chapters 11, 12, and 14

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Grade 6 NCTM Focal Points Alignment

Math Triumphs, Grade 6 provides the prerequisite concepts and skills necessary for success with the Grade 6 NCTM Focal Points. Horizontal alignment ensures successful transitions between Math Connects and Math Triumphs.

Preparation for NCTM Grade 6 Focal Points	Math Triumphs, Grade 6	Targeted Prerequisite Skills and Concepts	Preparation for Math Connects, Grade 6
Grade 6 Focal Point 1 Number and Operations Math Triumphs Book 1	Chapter 1 Fractions	Understand parts of whole, parts of a set.	Chapter 4
		Recognize and name equivalent fractions.	Chapter 4
		Compare and order fractions.	Chapter 4
	Chapter 2 Operations with Fractions	Simplify fractions.	Chapter 5
		Multiply fractions.	Chapter 5
		Divide fractions.	Chapter 5
	Chapter 3 Decimals	Understand place value through thousandths.	Chapter 3
		Estimate decimals.	Chapter 3
		Compare and order decimals.	Chapters 3 and 8
	Chapter 4 Operations with Decimals	Add and subtract decimals.	Chapter 3
Multiply decimals.		Chapter 3	
Divide decimals.		Chapter 3	
Grade 6 Focal Point 2 Number and Operations Math Triumphs Book 2	Chapter 5 Multiplication	Understand basic multiplication and repeated addition.	Chapters 1, 2, 3, 5, and 11
		Use patterns and sequences.	Chapters 6 and 12
		Multiply whole numbers.	Chapters 1, 2, 3, 5, 8, and 11
	Chapter 6 Division	Understand basic division and repeated subtraction.	Chapters 1, 2, 3, 5, and 11
		Use patterns and sequences.	Chapters 6 and 12
		Divide whole numbers.	Chapters 1, 2, 3, 5, and 11
	Chapter 7 Ratios, Rates, and Unit Rates	Recognize ratios as fractions.	Chapter 6
		Calculate rates and unit rates.	Chapter 6
Represent probability as a ratio.		Chapter 7	
Grade 6 Focal Point 3 Algebra Math Triumphs Book 3	Chapter 8 Properties	Use the Properties of Addition and Multiplication to solve equations.	Chapters 6 and 12
	Chapter 9 Variables and Expressions	Evaluate algebraic equations.	Chapter 6
	Chapter 10 Formulas	Solve equations.	Chapters 6, 9, and 12
		Solve for one variable in common formulas.	Chapters 9, 10, and 12

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Grade 7 NCTM Focal Points Alignment

Math Triumphs, Grade 7 provides the prerequisite concepts and skills necessary for success with the Grade 7 NCTM Focal Points. Horizontal alignment ensures successful transitions between Math Connects and Math Triumphs.

Preparation for NCTM Grade 7 Focal Points	Math Triumphs, Grade 7	Targeted Prerequisite Skills and Concepts	Preparation for Math Connects, Grade 7
Grade 7 Focal Point 1 Number and Operations, Algebra, and Geometry <i>Math Triumphs Book 1</i>	Chapter 1 Fractions	Simplify fractions.	Chapters 4 and 5
		Compare and order fractions.	Chapters 4 and 5
	Chapter 2 Ratios, Rates, and Proportional Relationships	Recognize ratios as fractions.	Chapters 4, 5, and 6
		Calculate rates and unit rates.	Chapter 6
		Represent probability as a ratio.	Chapters 6 and 9
		Use proportional reasoning to solve problems.	Chapter 6
	Chapter 3 Percents	Interpret percents.	Chapter 7
		Convert between fractions, percents, and decimals.	Chapters 4, 5, and 7
		Calculate using percents.	Chapter 7
Grade 7 Focal Point 2 Measurement, Geometry, and Algebra <i>Math Triumphs Book 2</i>	Chapter 4 Measurement	Measure the length of objects using metric and customary measurements.	Chapter 11
		Convert within the metric system of measurement.	Chapter 11
		Convert within the customary system of measurement.	Chapter 11
	Chapter 5 Two-Dimensional Figures	Identify and draw triangles and quadrilaterals.	Chapter 10
		Find the area of various polygons.	Chapters 11 and 12
	Chapter 6 Three-Dimensional Figures	Identify characteristics of three-dimensional figures.	Chapters 11 and 12
		Find the surface area of a rectangular solid.	Chapters 11 and 12
		Find the volume of a rectangular solid.	Chapters 11 and 12
Grade 7 Focal Point 3 Number and Operations and Algebra <i>Math Triumphs Book 3</i>	Chapter 7 Whole Numbers and Integers	Read and write whole numbers in the millions.	Chapters 1, 2, and 3
		Round and compare whole numbers in the millions.	Chapters 1, 2, and 3
		Use models to understand integer values.	Chapters 1, 2, and 3
	Chapter 8 Integer Operations	Add and subtract integers.	Chapters 1, 2, 3, and 8
		Multiply and divide integers.	Chapters 1, 2, 3, and 8
	Chapter 9 Variables and Expressions	Evaluate algebraic expressions.	Chapters 1 and 3
	Chapter 10 Equations	Solve linear equations.	Chapters 1 and 3

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Grade 8 NCTM Focal Points Alignment

Math Triumphs, Grade 8 provides the prerequisite concepts and skills necessary for success with the Grade 8 NCTM Focal Points. Horizontal alignment ensures successful transitions between *Math Connects* and *Math Triumphs*.

Preparation for NCTM Grade 8 Focal Points	Math Triumphs, Grade 8	Targeted Prerequisite Skills and Concepts	Preparation for Math Connects, Course 3
Grade 8 Focal Point 1 Algebra Math Triumphs Book 1	Chapter 1 Integers	Use models to understand integer values.	Chapter 1
		Calculate integers using operations. Multiply and divide integers.	Chapter 1
	Chapter 2 Patterns and Graphs	Solve simple problems involving functional relationships.	Chapters 8, 9, and 10
		Identify and graph ordered pairs on a coordinate grid.	Chapters 8, 9, and 10
		Graph linear and nonlinear functions.	Chapters 8, 9, and 10
	Chapter 3 Expressions and Equations	Use the order of operations to evaluate expressions and solve equations with integer solutions.	Chapters 1, 8, and 9
		Use variables in simple expressions and equations.	Chapters 1, 8, and 9
		Solve simple linear equations for one variable in terms of another.	Chapters 1, 8, 9, and 10
	Grade 8 Focal Point 2 Geometry and Measurement Math Triumphs Book 2	Chapter 4 Angle Measures	Measure, identify, and draw angles and triangles.
Add measures of angles and know the sum of the angles in a triangle and a straight angle.			Chapters 6 and 7
Identify the measure of an angle, using knowledge about transversals and parallel lines.			Chapter 6
Chapter 5 Ratios, Rates, and Similarity		Determine unit costs and understand ratios and rates.	Chapters 2, 4, and 10
		Use proportions to compare sets of numerical data.	Chapters 2, 4, 5, and 11
		Use proportions to compare figures and solve problems.	Chapters 2, 4, 5, and 11
Chapter 6 Squares, Square Roots, and the Pythagorean Theorem		Find square numbers and positive square roots of positive integers.	Chapter 3
		Know and use the Pythagorean Theorem to find the lengths of unknown sides of a right triangle.	Chapter 3
		Graph linear functions and determine the slope of a line.	Chapters 3 and 9
Grade 8 Focal Point 3 Data Analysis, Number and Operations, and Algebra Math Triumphs Book 3	Chapter 7 One-Variable Data	Sort and classify data and find the measures of central tendency.	Chapters 9 and 11
		Interpret and create bar graphs.	Chapters 9 and 11
		Interpret and create line graphs.	Chapters 9 and 11
	Chapter 8 Percents and Circle Graphs	Calculate percentages for data in a set.	Chapters 5, 11, and 12
		Interpret and create circle graphs.	Chapters 5 and 11
	Chapter 9 Two-Variable Data	Identify and describe the relationship between two variables within an equation of on a graph.	Chapters 9, 10, and 11
		Interpret and make predictions using data in a scatter plot.	Chapters 9, 10, and 11

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