

## Mathematics - LV 5 (with QuickTables)

This course covers the topics shown below.

Students navigate learning paths based on their level of readiness.

Institutional users may customize the scope and sequence to meet curricular needs.

Curriculum (261 topics + 258 additional topics)

- Place Value and Review of Arithmetic (58 topics)
  - Whole Number Place Value and Numeral Translation (8 topics)
    - Whole number place value: Problem type 1
    - Whole number place value: Problem type 2
    - Comparing place values of digits in a whole number: Problem type 1
    - Numeral translation: Problem type 1
    - Numeral translation: Problem type 2
    - Expanded form: 2 and 3-digit numbers
    - Expanded form: 4 and 5-digit numbers
    - Expanded form with zeros
  - Ordering Whole Numbers (2 topics)
    - Introduction to inequalities
    - Ordering large numbers
  - Rounding Whole Numbers (3 topics)
    - Rounding to tens or hundreds
    - Rounding to hundreds or thousands
    - Rounding to thousands, ten thousands, or hundred thousands
  - Adding Whole Numbers (15 topics)
    - One-digit addition with regrouping
    - Addition of 3 or 4 one-digit numbers
    - Adding 2-digit numbers without regrouping
    - Adding a 2-digit number and a 1-digit number with regrouping
    - Finding numbers that add to a multiple of 10
    - Adding by making a ten
    - Adding 2-digit numbers with regrouping a ten
    - Adding multiples of 10 and 100
    - Adding 2-digit numbers with regrouping a hundred
    - Adding 3-digit numbers with regrouping
    - Adding 3 or 4 numbers with two-digits with regrouping
    - Adding by making a hundred
    - Addition without regrouping using place values
    - Adding 3 numbers with two, three, and four-digits
    - Introduction to properties of addition
  - Subtracting Whole Numbers (10 topics)
    - Subtracting a 1-digit number from a 2-digit number
    - Subtraction of 2-digit numbers without regrouping
    - Subtracting multiples of 10 and 100
    - Subtraction involving 3-digit numbers without regrouping
    - Subtraction of 2-digit numbers with regrouping
    - Subtraction with multiple regrouping steps involving 3-digit numbers
    - Subtraction with multiple regrouping steps involving 4-digit numbers
    - Subtraction and regrouping with zeros
    - Fact families for addition and subtraction
    - Word problem with addition or subtraction of whole numbers
  - Estimating Sums and Differences (2 topics)
    - Estimating a sum of whole numbers: Problem type 1
    - Estimating a difference of whole numbers: Problem type 1
  - Understanding Multiplication (8 topics)
    - Using equal groups to find a total
    - Multiplying one-digit numbers: Problem type 1
    - Multiplying one-digit numbers: Problem type 2
    - Multiplication as repeated addition
    - Writing addition and multiplication sentences for equal groups
    - Using multiplication to find the number of squares
    - Multiplying 2-digit and 1-digit numbers without regrouping
    - Word problem with multiplication of whole numbers

- Understanding Division (6 topics)
  - Division facts: Problem type 1
  - Division facts: Problem type 2
  - Relating multiplication and division facts
  - Fact families for multiplication and division
  - Division of whole numbers given in fractional form
  - Word problem with division of whole numbers
- Introduction to Perimeter and Area (4 topics)
  - Perimeter of a polygon
  - Perimeter of a square or a rectangle
  - Area of a rectangle on a grid
  - Area of a rectangle with one-digit side lengths
- Multiplying Whole Numbers (27 topics)
  - Multiplication Patterns (5 topics)
    - Multiplication by 10, 100, and 1000
    - Introduction to multiplication with a trailing zero
    - Multiplication with trailing zeros: Problem type 1
    - Multiples: Problem type 1
    - Multiples: Problem type 2
  - Properties of Multiplication (3 topics)
    - Using the distributive property to multiply two whole numbers
    - Introduction to properties of multiplication
    - Introduction to parentheses
  - Multiplying Multi-Digit Numbers (10 topics)
    - Multiplying 2-digit and 1-digit numbers with regrouping: Problem type 1
    - Multiplying 2-digit and 1-digit numbers with regrouping: Problem type 2
    - Understanding multiplication of a one-digit number with a larger number
    - Multiplying multi-digit and 1-digit numbers with regrouping
    - Introduction to multiplication using an area model
    - Multiplying a multi-digit and a 1-digit number using an area model
    - Introduction to multiplication of large numbers
    - Area of a rectangle with two-digit by one-digit side lengths
    - Multiplication of large numbers
    - Multiplication with trailing zeros: Problem type 2
  - Estimating Products (1 topics)
    - Estimating a product
  - Comparisons and Word Problems Involving Multiplication (5 topics)
    - Multiplicative comparison involving groups of objects
    - Word problem involving multiplicative or additive comparison
    - Word problem with multiplication or division of whole numbers
    - Word problem on unit rates associated with ratios of whole numbers: Whole number answers
    - Word problem with multiplication and addition or subtraction of whole numbers
  - Exponents and Powers of Ten (3 topics)
    - Writing expressions using exponents
    - Introduction to exponents
    - Power of 10: Positive exponent
- Dividing Whole Numbers (21 topics)
  - Dividing Two-Digit Dividends (6 topics)
    - Division without regrouping
    - Division with regrouping: 1-digit divisor, 2-digit dividend
    - Quotient with remainder: 1-digit divisor, 2-digit dividend
    - Writing a division sentence for equal groups
    - Writing a division sentence for equal groups and a remainder
    - Whole number division: 2-digit by 2-digit, no remainder
  - Division Patterns (1 topics)
    - Division with trailing zeros: Problem type 1
  - Dividing Three- and Four-Digit Dividends (6 topics)
    - Division with regrouping: 1-digit divisor, 3-digit or 4-digit dividend
    - Quotient with remainder: 1-digit divisor, 3-digit or 4-digit dividend
    - Division involving quotients with intermediate zeros: Problem type 1
    - Division involving quotients with intermediate zeros: Problem type 2
    - Division with remainder involving quotients with intermediate zeros: Problem type 1

- Division with trailing zeros: Problem type 2
- Dividing by Two-Digit Divisors (4 topics)
  - Whole number division: 3-digit by 2-digit, no remainder
  - Division with no remainder and a two-digit divisor: Problem type 2
  - Division with remainder and a two-digit divisor: Problem type 1
  - Division with remainder and a two-digit divisor: Problem type 2
- Estimating Quotients (1 topics)
  - Estimating a quotient
- Interpreting Remainders (3 topics)
  - Word problem on quotient and remainder
  - Word problem with division of whole numbers and rounding: Problem type 1
  - Word problem with division of whole numbers and rounding: Problem type 2
- Adding and Subtracting Decimals (26 topics)
  - Decimal Place Value (3 topics)
    - Decimal place value: Tenths and hundredths
    - Writing a decimal number less than 1 given its name
    - Writing a decimal number greater than 1 given its name
  - Relating Fractions and Decimals (6 topics)
    - Introduction to unit fractions
    - Introduction to non-unit fractions
    - Writing a decimal and a fraction for a shaded region
    - Converting a fraction with a denominator of 10 or 100 to a decimal
    - Converting a fraction with a denominator of 100 or 1000 to a decimal
    - Converting a decimal to a proper fraction without simplifying: Basic
  - Decimals on the Number Line (2 topics)
    - Reading decimal position on a number line: Tenths
    - Reading decimal position on a number line: Hundredths
  - Ordering Decimals (2 topics)
    - Introduction to ordering decimals
    - Ordering decimals
  - Adding Decimals (5 topics)
    - Addition of decimals: Vertically aligned
    - Decimal addition with 2 numbers
    - Decimal addition with 3 numbers
    - Addition with money
    - Word problem with addition of 3 or 4 decimals and whole numbers
  - Subtracting Decimals (6 topics)
    - Subtraction of aligned decimals
    - Decimal subtraction: Basic
    - Decimal subtraction: Advanced
    - Subtraction with money
    - Word problem with addition or subtraction of 2 decimals
    - Word problem with subtraction of a whole number and a decimal: Regrouping with zeros
  - Estimating Sums and Differences (2 topics)
    - Rounding decimals
    - Estimating a decimal sum or difference
- Multiplying and Dividing Decimals (16 topics)
  - Multiplying Decimals by Powers of Ten (1 topics)
    - Multiplication of a decimal by a power of ten
  - Multiplying Decimals by Whole Numbers (4 topics)
    - Multiplying a decimal less than 1 by a whole number
    - Multiplying a decimal by a whole number
    - Word problem with multiplication of a decimal and a whole number
    - Word problem with multiple decimal operations: Problem type 1
  - Multiplying Decimals (4 topics)
    - Multiplying decimals less than 1: Problem type 1
    - Decimal multiplication: Problem type 1
    - Multiplication of a decimal by a power of 0.1
    - Word problem with multiplication of two decimals

- Dividing Decimals by Powers of Ten (1 topics)
      - Division of a decimal by a power of ten
    - Dividing Decimals by Whole Numbers (3 topics)
      - Division of a decimal by a whole number
      - Word problem with division of a decimal and a whole number
      - Word problem with multiple decimal operations: Problem type 2
    - Dividing Decimals (3 topics)
      - Division of a decimal by a 1-digit decimal: Problem type 1
      - Division of a decimal by a 2-digit decimal
      - Word problem with division of two decimals
  - Fractions (22 topics)
    - Prime Numbers and Factors (4 topics)
      - Even and odd numbers
      - Divisibility rules for 2, 5, and 10
      - Factors
      - Prime numbers
    - Equivalent Fractions (10 topics)
      - Understanding equivalent fractions: Problem type 1
      - Understanding equivalent fractions: Problem type 2
      - Modeling and writing equivalent fractions
      - Conversions involving division in fractional form and whole numbers
      - Introduction to finding equivalent fractions: Multiplying
      - Introduction to finding equivalent fractions: Dividing
      - Writing a fraction with denominator 10 as a fraction with denominator 100
      - Equivalent fractions
      - Introduction to simplifying a fraction
      - Simplifying a fraction
    - Least Common Multiple (1 topics)
      - Least common multiple of 2 numbers
    - Fractions on the Number Line (2 topics)
      - Position of fractions on a number line
      - Plotting fractions using a number line
    - Ordering Fractions (2 topics)
      - Comparing fractions with the same denominator
      - Comparing fractions by finding a common denominator
    - Mixed Numbers and Improper Fractions (3 topics)
      - Writing a mixed number and an improper fraction for a shaded region
      - Writing an improper fraction as a mixed number
      - Writing a mixed number as an improper fraction
  - Operations with Fractions (33 topics)
    - Adding and Subtracting Fractions with Like Denominators (3 topics)
      - Addition or subtraction of fractions with the same denominator
      - Addition or subtraction of fractions with the same denominator and simplification
      - Word problem involving addition or subtraction of fractions with the same denominator
    - Adding and Subtracting Fractions with Unlike Denominators (5 topics)
      - Finding the LCD of two fractions
      - Writing unit fractions with a common denominator to add or subtract
      - Writing fractions with a common denominator to add or subtract
      - Addition or subtraction of fractions with different denominators
      - Word problem involving addition or subtraction of fractions with different denominators
    - Adding and Subtracting Mixed Numbers (9 topics)
      - Addition or subtraction of mixed numbers with the same denominator
      - Addition of mixed numbers with the same denominator and renaming: Problem type 1
      - Addition of mixed numbers with the same denominator and renaming: Problem type 2
      - Subtraction of mixed numbers with the same denominator and renaming: Problem type 1
      - Subtraction of mixed numbers with the same denominator and renaming: Problem type 2
      - Addition or subtraction of mixed numbers with different denominators without renaming
      - Addition of mixed numbers with different denominators and renaming
      - Subtraction of mixed numbers with different denominators and renaming
      - Word problem involving addition or subtraction of mixed numbers with different denominators

- Multiplying Fractions by Whole Numbers (4 topics)
  - Product of a unit fraction and a whole number
  - Product of a fraction and a whole number: Problem type 1
  - Product of a fraction and a whole number: Problem type 2
  - Word problem involving multiplying a fraction and a whole number
- Multiplying Fractions (6 topics)
  - Introduction to fraction multiplication
  - Fraction multiplication
  - Modeling multiplication of proper fractions
  - Area of a rectangle with fractional side lengths
  - Word problem involving fractions and multiplication
  - Determining if a quantity is increased or decreased when multiplied by a fraction
- Division Involving Whole Numbers and Unit Fractions (2 topics)
  - The reciprocal of a number
  - Division involving a whole number and a unit fraction
- Multiplying and Dividing Mixed Numbers (4 topics)
  - Multiplying mixed numbers: Problem type 1
  - Multiplying mixed numbers: Problem type 2
  - Multiplying a mixed number and a whole number: Problem type 1
  - Multiplying a mixed number and a whole number: Problem type 2
- Expressions and Equations (15 topics)
  - Order of Operations (3 topics)
    - Introduction to order of operations
    - Order of operations with whole numbers
    - Order of operations with whole numbers and grouping symbols
  - Evaluating Expressions (3 topics)
    - Evaluating an algebraic expression: Whole number addition or subtraction
    - Evaluating an algebraic expression: Whole number multiplication or division
    - Evaluating an algebraic expression: Whole numbers with two operations
  - Solving Addition and Subtraction Equations (1 topics)
    - Additive property of equality with whole numbers
  - Solving Multiplication and Division Equations (1 topics)
    - Introduction to solving an equation with multiplication or division
  - Patterns and Sequences (5 topics)
    - Describing an increasing or decreasing pattern from a table of values
    - Function tables with one-step rules
    - Finding the next terms of an arithmetic sequence with whole numbers
    - Finding the next terms of a geometric sequence with whole numbers
    - Finding patterns in shapes
  - Ordered Pairs (2 topics)
    - Reading a point in quadrant 1
    - Plotting a point in quadrant 1
- Measurement (22 topics)
  - Measuring with U.S. Customary Units (2 topics)
    - Measuring length to the nearest inch
    - Measuring length to the nearest quarter or half inch
  - Converting with U.S. Customary Units of Length (3 topics)
    - Conversion table with U.S. Customary length
    - U.S. Customary length conversion with whole number values
    - Conversions involving measurements in feet and inches
  - Converting with U.S. Customary Units of Volume and Weight (6 topics)
    - Conversion table with U.S. Customary weight
    - Conversion table with U.S. Customary volume
    - U.S. Customary volume conversion with whole number values
    - U.S. Customary weight conversions with whole number values
    - U.S. Customary unit conversion with whole number values: Two-step conversion
    - U.S. Customary unit conversion with mixed number values: One-step conversion
  - Measuring with Metric Units (3 topics)
    - Measuring length to the nearest centimeter

- Word problem involving metric mass or volume: Addition or subtraction
  - Word problem involving metric mass or volume: Multiplication or division
- Converting with Metric Units of Length (3 topics)
  - Conversion table with metric distance
  - Metric distance conversion with whole number values
  - Metric distance conversion with decimal values
- Converting with Metric Units of Volume and Mass (2 topics)
  - Conversion table with metric mass or volume
  - Metric mass or volume conversion with whole number values
- Line Plots (3 topics)
  - Interpreting a tally table
  - Constructing a line plot
  - Constructing a line plot with fractional values: Fourths
- Geometry (9 topics)
  - Segments, Rays, and Lines (1 topics)
    - Identifying parallel and perpendicular lines
  - Classifying and Measuring Angles (2 topics)
    - Classifying angles as smaller than right, right, larger than right
    - Acute, obtuse, and right angles
  - Polygons (1 topics)
    - Naming polygons
  - Classifying Triangles (2 topics)
    - Acute, obtuse, and right triangles
    - Classifying scalene, isosceles, and equilateral triangles by side lengths
  - Quadrilaterals (3 topics)
    - Shared attributes among categories of quadrilaterals
    - Identifying parallelograms, rectangles, and squares
    - Properties of quadrilaterals
- Perimeter, Area, and Volume (12 topics)
  - Perimeter (1 topics)
    - Finding the missing length in a figure
  - Area of Rectangles (2 topics)
    - Relating the area of a rectangle to multiplying its side lengths
    - Word problem involving the area of a rectangle: Problem type 1
  - Area of Composite Figures (4 topics)
    - Finding the area of a composite figure on a grid
    - Introduction to area of a piecewise rectangular figure
    - Area of a piecewise rectangular figure
    - Word problem on finding the area of a piecewise rectangular figure
  - Volume (5 topics)
    - Volume of a rectangular prism made of unit cubes
    - Volume of a rectangular prism
    - Writing equivalent expressions for the volume of a rectangular prism
    - Volume of a piecewise rectangular prism
    - Word problem involving the volume of a piecewise rectangular prism
- Other Topics Available(\*) (258 additional topics)
  - Place Value and Review of Arithmetic (10 topics)
    - Finding the value of a collection of coins
    - Finding the value of a collection of bills and coins
    - Addition or subtraction with 10 or 100
    - Addition or subtraction with 10, 100, or 1000
    - Estimating a sum of whole numbers: Problem type 2
    - Estimating a difference of whole numbers: Problem type 2
    - Using addition and multiplication to count the objects on a grid
    - Writing a multiplication shown in a picture
    - Writing a division shown in a picture
    - Perimeter of a rectangle on a grid

- Multiplying Whole Numbers (4 topics)
  - Using an area model to represent the distributive property
  - Introduction to the distributive property
  - Comparing a numerical expression with a number
  - Understanding the distributive property
- Dividing Whole Numbers (2 topics)
  - Filling in missing operations to make an equation
  - Division with remainder involving quotients with intermediate zeros: Problem type 2
- Adding and Subtracting Decimals (6 topics)
  - Decimal place value: Hundreds to ten thousandths
  - Writing a decimal number given its name: Advanced
  - Converting a decimal to a proper fraction without simplifying: Advanced
  - Understanding decimal position on a number line using zoom: Hundredths
  - Understanding decimal position on a number line using zoom: Thousandths
  - Decimal addition and subtraction with 3 or more numbers
- Multiplying and Dividing Decimals (5 topics)
  - Decimal multiplication: Problem type 2
  - Multiplying decimals less than 1: Problem type 2
  - Estimating a product of decimals
  - Division of a decimal by a power of 0.1
  - Whole number division with decimal answers
- Fractions (25 topics)
  - Divisibility rules for 3 and 9
  - Prime factorization
  - Greatest common factor of 2 numbers
  - Greatest common factor of 3 numbers
  - Least common multiple of 3 numbers
  - Word problem involving the least common multiple of 2 numbers
  - Word problem with common multiples
  - Comparing fractions with the same numerator
  - Position of mixed numbers on a number line
  - Plotting mixed numbers on a number line
  - Converting a proper fraction with a denominator of 2, 4, or 5 to a decimal
  - Converting a mixed number with a denominator of 2, 4, or 5 to a decimal
  - Converting a fraction to a terminating decimal: Basic
  - Converting a fraction to a terminating decimal: Advanced
  - Converting a fraction to a repeating decimal: Basic
  - Converting a fraction to a repeating decimal: Advanced
  - Using a calculator to convert a fraction to a rounded decimal
  - Converting a mixed number to a terminating decimal: Basic
  - Converting a mixed number to a terminating decimal: Advanced
  - Converting a decimal to a proper fraction in simplest form: Basic
  - Converting a decimal to a proper fraction in simplest form: Advanced
  - Converting a decimal to a mixed number and an improper fraction without simplifying
  - Converting a decimal to a mixed number and an improper fraction in simplest form: Basic
  - Converting a decimal to a mixed number and an improper fraction in simplest form: Advanced
  - Ordering fractions and decimals
- Operations with Fractions (16 topics)
  - Decomposing a fraction into a sum of fractions with the same denominator
  - Adding and subtracting fractions with denominators of 10 and 100
  - Addition and subtraction of 3 fractions with different denominators
  - Fractional part of a circle
  - Addition and subtraction of 3 mixed numbers with different denominators
  - Perimeter of a polygon involving mixed numbers and fractions
  - Multiplication of 3 fractions
  - Multi-step word problem involving fractions and multiplication
  - Division involving a whole number and a fraction
  - Fraction division
  - Modeling division of a whole number by a fraction
  - Word problem involving fractions and division
  - Division with a mixed number and a whole number
  - Mixed number division
  - Area of a rectangle involving mixed number and fractional side lengths
  - Word problem involving multiplication or division with mixed numbers
- Expressions and Equations (47 topics)
  - Order of operations with whole numbers and exponents: Basic
  - Comparing numerical expressions with parentheses
  - Evaluating a formula

- Evaluating an algebraic expression: Whole numbers with one operation and an exponent
  - Writing a one-step expression for a real-world situation
  - Translating a phrase into a one-step expression
  - Translating a phrase into a two-step expression
  - Identifying solutions to a one-step linear equation: Problem type 1
  - Additive property of equality with decimals
  - Additive property of equality with fractions and mixed numbers
  - Identifying solutions to a one-step linear equation: Problem type 2
  - Writing an equation and solving a multiplicative comparison word problem
  - Multiplicative property of equality with whole numbers
  - Multiplicative property of equality with decimals
  - Multiplicative property of equality with fractions
  - Solving a fraction word problem using a linear equation of the form  $Ax = B$
  - Using two steps to solve an equation with whole numbers
  - Introduction to using substitution to solve a linear equation
  - Translating a sentence into a one-step equation
  - Writing a function rule given a table of ordered pairs: One-step rules
  - Plotting integers on a number line
  - Plotting opposite integers on a number line
  - Plotting rational numbers on a number line
  - Ordering integers
  - Reading a positive temperature from a thermometer
  - Reading the temperature from a thermometer
  - Writing a signed number for a real-world situation
  - Integer addition: Problem type 1
  - Integer addition: Problem type 2
  - Integer subtraction: Problem type 1
  - Integer subtraction: Problem type 2
  - Integer subtraction: Problem type 3
  - Computing the distance between two integers on a number line
  - Identifying relative change when combining two quantities
  - Word problem with addition or subtraction of integers
  - Absolute value of a number
  - Additive property of equality with integers
  - Square root of a perfect square
  - Introduction to scientific notation with positive exponents
  - Scientific notation with a positive exponent
  - Reading a point in the coordinate plane
  - Plotting a point in the coordinate plane
  - Finding distances between points that share a common coordinate given the graph
  - Finding distances between points that share a common coordinate given their coordinates
  - Graphing whole number functions
  - Function tables with two-step rules
  - Graphing a line in quadrant 1
- Measurement (22 topics)
    - Choosing a measuring tool
    - Choosing U.S. Customary measurement units
    - Adding measurements in feet and inches
    - U.S. Customary area unit conversion with whole number values
    - U.S. Customary unit conversion with mixed number values: Two-step conversion
    - Choosing metric measurement units
    - Measuring length to the nearest millimeter
    - Metric area unit conversion with decimal values
    - Metric conversion with decimal values: Two-step problem
    - Converting between metric and U.S. Customary unit systems
    - Time unit conversion with whole number values
    - Telling time: Minutes are a multiple of 5
    - Telling time: Minutes are not a multiple of 5
    - Telling time and determining a.m. or p.m.
    - Word problem involving adding or subtracting time within the hour
    - Introduction to adding time
    - Adding time
    - Word problem on elapsed time within the hour
    - Word problem on elapsed time less than one hour
    - Word problem on elapsed time more than one hour
    - Word problem on elapsed times crossing a.m. and p.m.
    - Reading a calendar
- Geometry (23 topics)
    - Naming segments, rays, and lines
    - Measuring an angle with the protractor
    - Drawing an angle with the protractor
    - Introduction to angle addition



- Finding an angle measure in a figure with a right or straight angle
- Classifying scalene, isosceles, and equilateral triangles by side lengths or angles
- Finding an angle measure of a triangle given two angles
- Finding an angle measure for a triangle with an extended side
- Interpreting a Venn diagram of 2 sets
- Classifying parallelograms
- Sum of the angle measures of a quadrilateral
- Identifying congruent shapes on a grid
- Identifying similar or congruent shapes on a grid
- Introduction to translations
- Introduction to reflections
- Identifying transformations
- Drawing lines of symmetry
- Finding an angle of rotation
- Identifying rotational symmetry and angles of rotation
- Constructing congruent line segments
- Constructing the perpendicular bisector of a line segment
- Constructing an angle bisector
- Constructing congruent angles
  
- Perimeter, Area, and Volume (33 topics)
  - Perimeter of a piecewise rectangular figure
  - Word problem on finding the perimeter of a rectangle
  - Finding an unknown side length of a polygon given the perimeter
  - Sides of polygons having the same perimeter
  - Word problem involving the area of a rectangle: Problem type 2
  - Finding side lengths of rectangles given one dimension and an area or a perimeter
  - Finding side lengths of squares given an area and a perimeter
  - Estimates and exact answers
  - Area between two rectangles
  - Areas of rectangles with the same perimeter
  - Distinguishing between the area and perimeter of a rectangle
  - Word problem on optimizing an area or perimeter
  - Finding the area of a right triangle on a grid
  - Finding the area of a right triangle or its corresponding rectangle
  - Area of a triangle
  - Area of a parallelogram
  - Finding the area of a trapezoid on a grid by using triangles and rectangles
  - Area of a trapezoid
  - Introduction to a circle: Diameter, radius, and chord
  - Circumference of a circle
  - Area of a circle
  - Classifying solids
  - Vertices, edges, and faces of a solid
  - Identifying geometric shapes that model real-world objects
  - Nets of solids
  - Counting the cubes in a solid made of cubes
  - Side views of a solid made of cubes
  - Word problem involving the volume of a rectangular prism
  - Volume of a triangular prism
  - Surface area of a rectangular prism made of unit cubes
  - Surface area of a cube or a rectangular prism
  - Surface area of a piecewise rectangular prism made of unit cubes
  - Surface area of a triangular prism
  
- Data, Ratios, and Probability (65 topics)
  - Introduction to interpreting a pictograph
  - Interpreting a pictograph table
  - Constructing a bar graph for non-numerical data
  - Interpreting a bar graph
  - Interpreting a double bar graph
  - Constructing a histogram for numerical data
  - Interpreting a line graph
  - Mode of a data set
  - Finding the mode and range of a data set
  - Finding the mode and range from a line plot
  - Average of two numbers
  - Mean of a data set
  - Finding the value for a new score that will yield a given mean
  - Mean and median of a data set
  - How changing a value affects the mean and median
  - Finding outliers in a data set
  - Interpreting a stem-and-leaf plot
  - Finding if a question can be answered by the data

- Writing ratios using different notations
- Writing ratios for real-world situations
- Simplifying a ratio of whole numbers: Problem type 1
- Finding a unit price
- Using tables to compare ratios
- Computing unit prices to find the better buy
- Word problem on unit rates associated with ratios of whole numbers: Decimal answers
- Solving a word problem on proportions using a unit rate
- Solving a proportion of the form  $x/a=b/c$ : Basic
- Solving a proportion of the form  $x/a = b/c$
- Word problem on proportions: Problem type 1
- Similar polygons
- Word problem with powers of ten
- Interpreting a Venn diagram of 3 sets
- Interpreting a tree diagram
- Introduction to the counting principle
- Determining a sample space and outcomes for an event: Experiment involving a single selection
- Classifying likelihood
- Introduction to the probability of an event
- Probability of an event
- Understanding likelihood
- Outcomes and event probability
- Converting a fraction with a denominator of 100 to a percentage
- Converting a percentage to a fraction with a denominator of 100
- Finding the percentage of a grid that is shaded
- Representing benchmark percentages on a grid
- Introduction to converting a percentage to a decimal
- Introduction to converting a decimal to a percentage
- Converting between percentages and decimals
- Converting between percentages and decimals in a real-world situation
- Converting a percentage to a fraction in simplest form
- Converting a fraction to a percentage: Denominator of 4, 5, or 10
- Finding benchmark fractions and percentages for a figure
- Converting a fraction to a percentage: Denominator of 20, 25, or 50
- Converting a fraction to a percentage in a real-world situation
- Finding a percentage of a whole number
- Finding a percentage of a whole number without a calculator: Basic
- Finding a percentage of a whole number without a calculator: Advanced
- Finding a percentage of a total amount: Real-world situations
- Finding a percentage of a total amount without a calculator: Sales tax, commission, discount
- Interpreting a circle graph or pie chart
- Finding a percentage of a total amount in a circle graph
- Writing a ratio as a percentage without a calculator
- Finding the sale price given the original price and percent discount
- Finding the sale price without a calculator given the original price and percent discount
- Finding the total cost including tax or markup
- Finding simple interest without a calculator

**\*Other Topics Available** By default, these topics are NOT included in the course, but can be added using the content editor in the Teacher Module.

**QuickTables** ALEKS QuickTables is a research-based, math fact mastery program for multiplication, division, addition, and subtraction for grades 3 and up. The online program offers ongoing assessment, learning, review, and visual tracking of student progress.