

Topic: Number and Operations in Bases Ten

Key Learning: M04.A-T.1
 Generalize place value understanding for multi-digit whole numbers.
 CC.2.1.4.B.1

Unit Essential Question:
 How do I apply place-value and numeration concepts to compare, find equivalencies, and round?

<p>Assessment Anchor: M04.A-T.1.1.1 Concept: A digit in one place represents ten times what it represents in the place to its right.</p>	<p>Assessment Anchor: M04.A-T.1.1.2 Concept: Expanded, standard and word form through 1,000,000.</p>	<p>Assessment Anchor: M04.A-T.1.1.3 Concept: Compare two multi-digit numbers through 1,000,000 using $>$, $=$, and $<$ symbols.</p>
<p>Essential Question(s): How do I demonstrate that a digit in the ones places represents ten times what it represents to its right?</p>	<p>Essential Question(s): How do I read and write whole numbers in expanded, standard and word form through 1,000,000?</p>	<p>Essential Question(s): How do I compare two multi-digit numbers through 1,000,000 based on meanings of the digits in each place using comparison symbols?</p>
<p>Vocabulary: Digit, Place value</p>	<p>Vocabulary: Expanded, Standard, Word form</p>	<p>Vocabulary: Comparison symbols</p>

<p>Assessment Anchor: M04.A-T.1.1.4 Concept: Round multi-digit whole numbers (through 1,000,000) to any place.</p>	<p>Concept:</p>	<p>Concept:</p>
<p>Essential Question(s): How do I round multi-digit whole numbers (through 1,000,000) to any place?</p>	<p>Essential Question(s):</p>	<p>Essential Question(s):</p>
<p>Vocabulary: Round</p>	<p>Vocabulary:</p>	<p>Vocabulary:</p>

Additional Information:

Topic: Number Operations in Base Ten

Key Learning: M04.A-T.2
 Use place value understanding and properties of operations to perform multi-digit arithmetic?
 CC.2.1.4.B.2

Unit Essential Question:
 How do I use operations to solve problems?

Assessment Anchor: M04.A-T.1.2.1 Concept: Add and Subtract Whole Numbers	Assessment Anchor: M04.A-T.1.2.2 Concept: Multiply whole digits	Assessment Anchor: M04.A-T.1.2.3 Concept: Divide whole digits
Essential Question(s): How do I add and subtract multi-digit whole numbers?	Essential Question(s): How do I multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit numbers?	Essential Question(s): How do I divide up to four-digit dividends by a one-digit divisor with answers written as whole-number quotients and remainders?
Vocabulary: Multi-digit, Whole numbers, Sum, Subtrahends, Addends, Minuend, Difference	Vocabulary: Multiply, product	Vocabulary: Divide, quotient, divisor, dividend, remainder

Assessment Anchor: M04.A-T.1.2.4 Concept: Estimate operation problems	Concept:	Concept:
Essential Question(s): How do I estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits x 1 digit, excluding powers of 10?	Essential Question(s):	Essential Question(s):
Vocabulary: Estimate	Vocabulary:	Vocabulary:

Additional Information:
 Use place value understanding and properties of operations to perform multi-digit arithmetic.

Topic: Number and Operations-Fractions

Key Learning: M04.A-F.1
 Extend understanding of fraction equivalence and ordering.
 CC.2.1.4.C.1

Unit Essential Question:
 How do I find equivalencies and compare fractions?

Assessment Anchor: M04.A-F.1.1.1 Concept: Recognize and generate equivalent fractions	Assessment Anchor: M04.A-F.1.1.2 Concept: Compare two fractions with different numerators and different denominators using the symbols $>$, $=$, or $<$, and justify the conclusions.	Concept:
Essential Question(s): How do I recognize and generate equivalent fractions?	Essential Question(s): How do I compare two fractions with different numerators and different denominators using comparison symbols?	Essential Question(s):
Vocabulary: Equivalent Fractions	Vocabulary: Greater than $>$ Less than $<$ Equal to $=$ Denominator Numerator Fraction, part of a whole	Vocabulary:

Concept:	Concept:	Concept:
Essential Question(s):	Essential Question(s):	Essential Question(s):
Vocabulary:	Vocabulary:	Vocabulary:

Additional Information:

Topic: Number Operations – Fractions

Key Learning: M04.A-F.2

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

CC.2.1.4.C.2

Unit Essential Question:

How do I solve problems involving fractions and whole numbers (straight computation and word problems)?

<p>Assessment Anchor: M04.A-F.2.1.1 Concept:</p> <p>Add and Subtract Fractions</p>	<p>Assessment Anchor: M04.A-F.2.1.2 Concept:</p> <p>Decompose fractions</p>	<p>Assessment Anchor: M04.A-F.2.1.3 Concept:</p> <p>Add and subtract mixed numbers</p>
<p>Essential Question(s):</p> <p>How do I add and subtract fractions with a common denominator of 2, 3, 4, 5, 6, 8, 10, 12, or 100?</p>	<p>Essential Question(s):</p> <p>How do I decompose fractions or mixed numbers into a sum of fractions with the same denominator?</p>	<p>Essential Question(s):</p> <p>How do I add and subtract mixed numbers with a common denominator of 2, 3, 4, 5, 6, 8, 10, 12, or 100?</p>
<p>Vocabulary:</p> <p>Fraction, Denominator, Numerator, Fraction bar, Common denominator</p>	<p>Vocabulary:</p> <p>Decompose, Mixed number</p>	<p>Vocabulary:</p> <p>Mixed number, Common denominator</p>

<p>Assessment Anchor: M04.A-F.2.1.4 Concept:</p> <p>Solve word problems by adding and subtracting fractions</p>	<p>Assessment Anchor: M04.A-F.2.1.5 Concept:</p> <p>Multiply a whole number by unit fraction</p>	<p>Assessment Anchor: M04.A-F.2.1.6 Concept:</p> <p>Multiply a whole number by a non-unit fraction</p> <p><i>Ex: $3 \times (5/6) = 15/6$</i></p>
<p>Essential Question(s):</p> <p>How do I solve word problems involving addition and subtraction of fractions with denominators of 2, 3, 4, 5, 6, 8, 10, or 12?</p>	<p>Essential Question(s):</p> <p>How do I multiply a whole number by a unit fraction with denominators of 2, 3, 4, 5, 6, 8, 10, or 12?</p>	<p>Essential Question(s):</p> <p>How do I multiply a whole number by a non-unit fraction with denominators of 2, 3, 4, 5, 6, 8, 10, or 12?</p>
<p>Vocabulary:</p>	<p>Vocabulary:</p>	<p>Vocabulary:</p>

<p>Assessment Anchor: M04.A-F.2.1.7</p> <p>Concept:</p> <p>Solve word problems by multiplying a whole number by a fraction</p>	<p>Concept:</p>	<p>Concept:</p>
<p>Essential Question(s):</p> <p>How do I solve word problems involving multiplying a whole number by a fraction with denominators of 2, 3, 4, 5, 6, 8, 10, or 12??</p>	<p>Essential Question(s):</p>	<p>Essential Question(s):</p>
<p>Vocabulary:</p>	<p>Vocabulary:</p>	<p>Vocabulary:</p>

Additional Information:

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

Topic: Number and Operations

Key Learning: M04.A-F.3
 Understand decimal notation for fractions, and compare decimal fractions.
 CC.2.1.4.C.3

Unit Essential Question:
 How do I use operations to solve problems involving decimals, including converting between fractions and decimals?

Assessment Anchor: M04.A-F.3.1.1 Concept: Add two fractions with respective denominators 10 and 100. <i>Ex: $3/10 = 30/100$; $3/10 + 4/100 = 34/100$</i>	Assessment Anchor: M04.A-F.3.1.2 Concept: Use decimal notation for fractions with denominators 10 or 100. <i>Ex: $6/10 = 0.6$</i>	Assessment Anchor: M04.A-F.3.1.3 Concept: Compare two decimals to hundredths using the symbols $>$, $=$, or $<$, and justify the conclusions.
Essential Question(s): How do I add two fractions with respective denominators 10 and 100?	Essential Question(s): How do I use decimal notation for fractions with denominators 10 or 100?	Essential Question(s): How do I compare two decimals to hundredths using the symbols $>$, $=$, or $<$, and justify my conclusions?
Vocabulary: Respective, Denominators, Fractions	Vocabulary: Decimal, Notation, Denominators	Vocabulary: Compare, Hundredths, Tenths, Greater than, Less than, Equal to

Concept:	Concept:	Concept:
Essential Question(s):	Essential Question(s):	Essential Question(s):
Vocabulary:	Vocabulary:	Vocabulary:

Additional Information:
 Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g., $19/100$)

Topic: Operations and Algebraic Thinking

Key Learning: M04.B-0.1
 Use the four operations with whole numbers to solve problems.
 CC.2.2.4.A.1

Unit Essential Question:
 How do I use numbers and symbols to model the concepts of expressions and equations?

Assessment Anchor: M04.B-0.1.1.1 Concept: Multiplication equation comparison <i>Ex: Interpret $35 = 5 \times 7$ as 5 times as many as 7; 7 times as many as 5</i>	Assessment Anchor: M04.B-0.1.1.2 Concept: Multiply or divide solve word problems and comparison <i>Ex: student "A" has 4 objects; "B" has 12. $3 \times 4 = 12$; "B" has 3 times as many as "A"</i>	Assessment Anchor: M04.B-0.1.1.3 Concept: Multi-step word problems with multiplication
Essential Question(s): How do I interpret a multiplication equation as a comparison and represent verbal statements of multiplicative comparisons?	Essential Question(s): How do I multiply or divide to solve word problems involving multiplicative comparison?	Essential Question(s): How do I solve multi-step word problems posed with whole numbers using one of the four operations?
Vocabulary: Comparisons Equation	Vocabulary:	Vocabulary: Multi-step

Assessment Anchor: M04.B-0.1.1.4 Concept: Identify correct comparison symbols	Concept:	Concept:
Essential Question(s): How do I identify the missing symbol that makes a number sentence true?	Essential Question(s):	Essential Question(s):
Vocabulary: Comparison symbols	Vocabulary:	Vocabulary:

Additional Information:
 Represent and solve problems involving the four operations.

Topic: Operations and Algebraic Thinking

Key Learning: M04.B-0.2
 Gain familiarity with factors and multiples.
 CC.2.2.4.A.2

Unit Essential Question:
 How do I develop and apply number theory concepts to represent numbers in various ways?

<p>Assessment Anchor: M04.B-0.2.1.1 Concept: Find all factor pairs for a whole number in the interval 1 through 100. Recognize that a whole number is a multiple of each of its factors.</p>	<p>Assessment Anchor: M04.B-0.2.1.2 Concept: Determine whether a given whole number in the interval 1 to 100 is a multiple of a given one-digit number.</p>	<p>Assessment Anchor: M04.B-0.2.1.3 Concept: Determine whether a given whole number in the interval 1 through 100 is prime or composite.</p>
<p>Essential Question(s): How do I find all factor pairs for a whole number in the interval 1 through 100?</p>	<p>Essential Question(s): How do I determine whether a given whole number in the interval 1 to 100 is a multiple of a given one-digit number?</p>	<p>Essential Question(s): How do I determine whether a given whole number in the interval 1 through 100 is prime or composite?</p>
<p>Vocabulary: Factor Pairs Whole number Interval</p>	<p>Vocabulary: Whole number Interval One-digit number multiple</p>	<p>Vocabulary: Whole number Interval Prime number Composite number</p>

Additional Information:
 Develop and/or apply number theory concepts to find factors and multiples.

Topic: Operations and Algebraic Thinking

Key Learning: M04.B0.3
 Generate and analyze patterns.
 CC.2.2.4.A.4

Unit Essential Question:
 How do I recognize, describe, extend, create, and replicate a variety of patterns?

Assessment Anchor: M04.B-0.3.1.1 Concept: Number and shape patterns	Assessment Anchor: M04.B-0.3.1.2 Concept: Function table elements	Assessment Anchor: M04.B-0.3.1.3 Concept: Find function table rules
Essential Question(s): How do I generate a number or shape pattern that follows a given rule?	Essential Question(s): How do I determine the missing elements in a function table?	Essential Question(s): How do I determine the rule for a function when given a table?
Vocabulary: Shape pattern Rule	Vocabulary: Function table Elements	Vocabulary:

Concept:	Concept:	Concept:
Essential Question(s):	Essential Question(s):	Essential Question(s):
Vocabulary:	Vocabulary:	Vocabulary:

Additional Information:
 Generate and analyze patterns using one rule.

Topic: Geometry

Key Learning: M04.C-G.1
 Draw and identify lines and angles, and classify shapes by properties of their lines and angles.
 CC.2.3.4.A.1, CC.2.3.4.A.2, CC.2.3.4.A.3

Unit Essential Question:
 How do I list properties, classify, draw and identify geometric figures in two dimensions?

<p>Assessment Anchor: M04.C-G.1.1.1 Concept: Draw points, lines, line segments, rays, angles (right, obtuse, acute), and perpendicular and parallel lines. Identify these in two-dimensional figures.</p>	<p>Assessment Anchor: M04.C-G.1.1.2 Concept: Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.</p>	<p>Assessment Anchor: M04.C-G.1.1.3 Concept: Recognize right triangles as a category, and identify right triangles.</p>
<p>Essential Question(s): How do I draw points, lines, line segments, rays, angles (right, obtuse, acute), and perpendicular and parallel lines?</p>	<p>Essential Question(s): How do I classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size?</p>	<p>Essential Question(s): How do I recognize right triangles as a category, and identify right triangles?</p>
<p>Vocabulary: Points, Lines, Line segments, Rays, Angles (right, obtuse, acute), Perpendicular lines, Parallel lines Two-dimensional figures</p>	<p>Vocabulary: Two-dimensional figures, Parallel lines Perpendicular lines, angles</p>	<p>Vocabulary: Right triangles</p>

<p>Assessment Anchor: M04.C-G.1.1.4 Concept:</p> <p>Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into mirroring parts.</p>	<p>Assessment Anchor: M04.C-G.1.1.5 Concept:</p> <p>Identify line-symmetric figures and draw lines of symmetry (up to two lines of symmetry).</p>	<p>Concept:</p>
<p>Essential Question(s):</p> <p>How do I recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into mirroring parts?</p>	<p>Essential Question(s):</p> <p>How do I identify line-symmetric figures and draw lines of symmetry (up to two lines of symmetry)?</p>	<p>Essential Question(s):</p>
<p>Vocabulary:</p> <p>Line of symmetry, Two-dimensional, figures, Line, Mirroring parts</p>	<p>Vocabulary:</p> <p>Line-symmetric figures Lines of symmetry</p>	<p>Vocabulary:</p>

Additional Information:

Topic: Measurement and Data

Key Learning: M04.D-M.1
 Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
 CC.2.4.4.A.1

Unit Essential Question:
 How do I solve problems involving length, weight (mass), liquid volume, time, area, and perimeter?

Assessment Anchor: M04.D-M.1.1.1 Concept: Measurement Units	Assessment Anchor: M04.D-M.1.1.2 Concept: Solve word measurement word problems	Assessment Anchor: M04.D-M.1.1.3 Concept: Area and Perimeter formulas
Essential Question(s): How do I know relative sizes of measurement units with standard units, metric units, and time?	Essential Question(s): How do I use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, money, and measurement conversions?	Essential Question(s): How do I apply the area and perimeter formulas for rectangles in real-world and mathematical problems?
Vocabulary: Standard units, Metric units, Time, relative size	Vocabulary: Volume, Mass, Converting measurements	Vocabulary: Area, Perimeter, Formula

Assessment Anchor: M04.D-M.1.1.4 Concept: Time as Minutes before an Hour	Concept:	Concept:
Essential Question(s): How do I identify the analog or digital time as the amount of minutes before or after the hour?	Essential Question(s):	Essential Question(s):
Vocabulary: Analog time, Digital time	Vocabulary:	Vocabulary:

Additional Information:
 Solve problems involving measurement and conversions from a larger unit to a smaller unit.

Topic: Measurement and Data

Key Learning: M04.D-M.2
 Represent and interpret data
 CC.2.4.4.A.2, CC.2.4.4.A.4

Unit Essential Question:
 How do I organize, display, and answer questions based on data?

<p>Assessment Anchor: M04.D-M.2.1.1 Concept: Make a line plot to display a data set of measurements in fractions of a unit (e.g. intervals of $\frac{1}{2}$, $\frac{1}{4}$, or $\frac{1}{8}$).</p>	<p>Assessment Anchor: M04.D-M.2.1.3 Concept: Solve problems involving addition and subtraction of fractions by using information presented in line plots (line plots must be labeled with common denominators, such as $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$).</p>	<p>Assessment Anchor: M04.D-M.2.1.3 Concept: Translate information from one type of display to another (table, chart, bar graph, or pictograph).</p>
<p>Essential Question(s): How do I make a line plot to display a data set of measurements in fractions of a unit?</p>	<p>Essential Question(s): How do I solve problems involving addition and subtraction of fractions by using information presented in line plots?</p>	<p>Essential Question(s): How do I translate information from one type of display to another?</p>
<p>Vocabulary: Line plot, Data, Measurement, Fractions Unit, Intervals</p>	<p>Vocabulary: Addition, Subtraction, Fractions, Line plot, Common denominator</p>	<p>Vocabulary: Translate, Table, Chart, Bar graph Pictograph</p>

<p>Concept:</p>	<p>Concept:</p>	<p>Concept:</p>
<p>Essential Question(s):</p>	<p>Essential Question(s):</p>	<p>Essential Question(s):</p>
<p>Vocabulary:</p>	<p>Vocabulary:</p>	<p>Vocabulary:</p>

Additional Information:
 Translate information from one type of data to another.
 Represent and interpret data involving fractions using information provided in a line plot.

Topic: Measurement and Data

Key Learning: M04.D-M.3
 Geometric measurement: understand concepts of angle; measure and create angles.
 CC.2.4.4.A.6

Unit Essential Question:
 How do I use appropriate tools and unites to sketch an angle and determine angle measurements?

Assessment Anchor: M04.D-M.3.1.1 Concept: Measure angles in whole-number degrees using a protractor.	Assessment Anchor: M04.D-M.3.2.1 Concept: With the aid of a protractor, sketch angles of specified measure.	Assessment Anchor: M04.D-M.3.1.3 Concept: Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems. (Angles must be adjacent and non-overlapping).
Essential Question(s): How do measure angles in whole-number degrees using a protractor?	Essential Question(s): With the aid of a protractor, how do I sketch angles of specified measure?	Essential Question(s): How do I solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems?
Vocabulary: Measure, Angle Degrees Protractor	Vocabulary: Protractor, Angles	Vocabulary: Addition, Subtraction, Angles, Diagram Real-world, Adjacent, Non-overlapping

Concept:	Concept:	Concept:
Essential Question(s):	Essential Question(s):	Essential Question(s):
Vocabulary:	Vocabulary:	Vocabulary:

Additional Information:
 Measure angles and use properties of adjacent angles to solve problems.