Classic 6A: Rational Numbers

UNIT 1: Understanding Parts of Wholes

x1.1 Understanding Fractions

x1.1.1 I can explain what the numerator and denominator represent in any fraction.

x1.1.2 I can determine if two fractions are equivalent using both multiplication and division.

x1.2 Comparing Fractions

x1.2.1 I can compare any two fractions

x1.2.3 I can find common denominators for any pair of fractions.

x1.2.3 I can order any group of fractions from least to greatest us.

x1.3 Understanding Decimals

x1.3.1 I can use place values to write decimals as fractions

x1.3.2 I can use division to change fractions into decimals

x1.3.3 I can order any group of decimals from least to greatest.

x1.4 Percentage

x1.4.1 I can explain the meaning of a percent

x1.4.2 I can use rational numbers (percentage, decimal, fractions) to compare quantities.

x1.4.3 I can fluidly change between a fraction, decimal and percent.

Unit 2: Fraction Operations

x2.1 Sums of Fractions and Decimals

x2.1.1 I can estimate the sums of fractions

x2.1.2 I can estimate the sums of decimals

x2.1.3 I can fluidly add and subtract fractions

x2.1.4 I can fluidly add and subtract decimals

x2.2 Multiplying Fractions

x2.2.1 I can model fraction multiplication using the area model

x2.2.2 I can fluidly multiply fractions.

x2.3 Divide Fractions

x2.3.1 I can use models to divide fractions

x2.3.2 I can fluidly divide fractions

Unit 3: Operations with Decimals and Percent

x3.1. Operations with decimals

x3.1.1 I can estimate decimal products

x3.1.2 I can multiply decimals

x3.1.3 I can divide decimals

x3.1.4 I can determine if a fraction is a terminating or repeating decimal

x3.2 Applications with Percent

x3.2.1 I can calculate the percent of a number

x3.2.2 I can calculate what percent one number is of another

Classic 6B: Expressions and Equations

UNIT 4: Using Variable; Variables and Patterns

x4.1 Variables, Tables and Coordinate Graphs

x4.1.1 I can explain the meaning of a variable

x4.1.2 I can identify which is the dependent and independent variable

x4.1.3 I can make coordinate graphs

x4.1.4 I can describe patterns of change seen in tables and graphs

x4.1.5 I can determine when it is appropriate to connect the points on a coordinate graph.

x4.2 Equations & Relationships

x4.2.1 I can write equations to model relationships between variables

x4.2.2 I can describe the advantages and disadvantages of using a table, graph or equation to model relationships between variables.

Unit 5: Variables, Expressions, Properties and Rates

x5.1 Numbers and Operations

x5.1.1 I can fluidly use the "order of operations" to simplify expressions.

x5.1.2 I can identify and use the distributive property in both directions.

x5.1.3 I can evaluate expressions when given variable values.

x5.1.4 I can use properties to write equivalent expressions.

x5.1.5 I can describe patterns using expressions.

x5.2 Solving Equations

x5.2.1 I can identify the four properties of equality.

x5.2.2 I can state the inverse of a given operation.

x5.2.3 I can solve single step equations using addition and subtractions equations. (variable is positive)

x5.2.4 I can solve single step equations using multiplication and division.

x5.3 Rates and Unit Rates

x5.3.1 I can determine rates and unit rates in a variety of settings.

x5.3.2 I can compare rates and determine in context which rate is better.

x5.3.3 I can use the distance, rate and time formula to solve for distance, rate or time when given any two of the variables.

x5.4 Inequalities

x5.4.1 I can write inequalities of the form $x > c$ or $x < c$.

x5.4.2 I can plot the solutions to $x > c$ or $x < c$ on a number line.

x5.5 Order of Integers and Absolute Value

x5.5.1 I can plot positive and negative numbers on a number line and on the coordinate plane.

x5.5.2 I can identify the opposite of any given number.

x5.5.3 I can determine the absolute value of any rational number.

x5.5.4 I can use positive and negative numbers to represent quantities in context and explain the meaning of "0" in each situation.

Classic 6C: Geometry and Statistics

Unit 6: Area of 2D Polygons & Surface Area & Volume of 3D Shapes

x6.1 Area of 2d Polygons

x6.1.1 I can find the area of triangles, quadrilaterals and polygons

x6.1.2 I can plot polygons on the coordinate grid.

x6.1.3 I can calculate horizontal and vertical side lengths of polygons plotted on the coordinate grid.

x6.2 Volume of 3D Shapes

x6.2.1 I can model the volume of rectangular prisms with unit cubes.

x6.2.2 I can use formulas to calculate the volumes of rectangular prisms

x6.2.3 I can model surface area of 3d shapes using nets.

x6.2.4 I can calculate surface area of 3D figures from nets.

Unit 7: Data Distributions and Central Tendencies

x7.1 Mean, Median, Mode and Range

x7.1.1 I can calculate the mean, median, mode and range of a data set.

x7.1.2 I can determine when to use the correct average.

x7.1.3 I can identify categorical and numerical data

x7.2 Making Data Plots

x7.2.1 I can make and read a line plots for a given data set.

x7.2.2 I can make and read a stem and leaf plot for a given set of data.

x7.2.3 I can make and read a bar graph for given set of data.

x7.3.4 I can make and read a coordinate plot for a given set of data

x7.3.5 I can make and read a histogram for a given set of data.

x7.3.5 I can calculate a five number summary for a set of data.

x7.3.6 I can make and read a box plot for a given set of data

x7.3.5 I can determine the best method for representing a given set of data.

x7.3 Analyzing Data and Plots

x7.3.1 I can describe the distribution of a data set.

x7.3.2 I can compare data distributions using back-to-back stem and leaf plots.

x7.3.3 I can analyze the relationship between variable in a coordinate graph.

x7.3.4 I can use mean median, mode and range to summarize a data set.

x7.3.5 I can show the effect of an outlier on the mean and median.