

Focus Statement: The students will compute sums, differences, products and quotients of decimals, fractions and mixed numbers. They will apply these computation skills to real life situations.

M.6.1 Students will read, write, and problem solve using numbers to the trillions place in various forms.

M.6.1.1 Read and write numbers to the trillions place in various forms including standard, number-word, word, expanded and exponential form.

M.6.1.2 Round, compare and order numbers to the trillions place.

M.6.1.3 Apply the commutative and associative properties of addition and multiplication.

M.6.1.4 Estimate sums, differences, products and quotients of numbers to the hundred millions place.

M.6.2 Students will translate mathematical vocabulary to an appropriate algebraic expressions and equations.

M.6.2.1 Identify variables, constants and operations in an algebraic expression.

M.6.2.2 Translate an English phrase into an appropriate mathematical expression.

M.6.2.3 Find a replacement value for a variable in a linear equation using guess, check and revise.

M.6.2.4 Use the order of operations to solve a multi-step arithmetic expression.

M.6.3 Students will create and interpret bar, line and circle graphs, including identifying misleading components.

M.6.3.1 Read and interpret bar graphs, line graphs, and circle graphs to draw conclusions from the data.

M.6.3.2 Analyze graphs in order to find misleading components and explain how they skew the perceptions of the reader.

M.6.3.3 Examine scatter plots in order to discover and describe trends in the data and predict future outcomes.

M.6.3.4 Create and use tally charts, frequency charts and line plots to organize and interpret data.

M.6.3.5 Create bar graphs using appropriate scales and intervals.

M.6.3.6 Find the outlier in a set of data and determine the effect on the mean of the given set.

M.6.3.7 Display classroom progress data in multiple bar or line graphs. Analyze possible trends and outliers to make predictions and set future goals.

M.6.4 Students will compute sums, differences, products and quotients of decimals to the hundred thousandths place and will apply these computation skills to real life situations.

M.6.4.1 Read and write decimals to the hundred thousandths place.

M.6.4.2 Round decimals to the hundred thousandths place.

M.6.4.3 Compare and order decimals to the hundred thousandths place.

M.6.4.4 Display standard numbers in scientific notation and convert scientific notation into standard form.

M.6.4.5 Utilize various estimation strategies in order to solve decimal problems to the thousandths place.

M.6.4.6 Compute sums, differences, products, and quotients of decimals to the hundred thousandths place.

M.6.4.7 Apply decimal computational processes to solve problems in real-life situations to the thousandths place.

M.6.5 Students will select and use measurement instruments, convert between systems, calculate measurements using given formulas and apply measurement skills in real life situations.

M.6.5.1 Measure objects to the nearest mm.

M.6.5.2 Select appropriate units within the metric system to measure various objects in length, capacity and mass. Convert units within the metric system.

M.6.5.3 Select appropriate units within the customary system to measure various objects in length, capacity and mass. Convert units within the customary system.

M.6.5.4. Find the perimeter of polygons with missing side lengths.

M.6.5.5 Calculate the area of squares, rectangles, right triangles, and parallelograms using appropriate formulas.

M.6.6 Students will demonstrate number sense by applying divisibility, finding prime factorization and identifying multiples. They will convert between fractions, decimals and mixed numbers in order to compare and order the quantities.

M.6.6.1 Apply divisibility rules for 2, 3, 4, 5, 6, 9, and 10.

M.6.6.2. Find the prime factorization of a number using a factor tree and display it using exponential notation.

M.6.6.3 Convert between improper fractions and mixed numbers.

M.6.6.4 Represent fractions, decimals and mixed numbers in equivalent forms.

M.6.7 Students will add and subtract fractions and mixed numbers with like and unlike denominators with regrouping.

M.6.7.1 Compute the sums and differences of fractions with both like and unlike denominators, with regrouping.

M.6.7.2 Estimate the sums and differences of mixed numbers.

M.6.7.3 Calculate the sums and differences of mixed numbers with renaming.

M.6.7.4 Calculate the differences of mixed numbers with regrouping.

M.6.8 Students will find the product and quotient of whole numbers, fractions and mixed numbers.

M.6.8.1 Estimate the products and quotients of fractions.

M.6.8.2 Compute the product of whole numbers, fractions and mixed numbers.

M.6.8.3 Compute the quotient of whole numbers, fractions and mixed numbers.

M.6.9 Students will classify and construct various polygons based on both angle and side measurements. They will identify slides, flips and turns of geometric figures.

M.6.9.1 Draw and measure angles to the nearest degree, and classify the angles based on the measurement.

M.6.9.2 Identify and compute complements and supplements of given angles.

M.6.9.3 Classify triangles by sides and angles.

M.6.9.4 Classify polygons by number of sides up to a decagon.

M.6.9.5 Identify and differentiate between types of quadrilaterals based on their properties.

M.6.9.6 Identify flips, turns and slides of various objects

M.6.10 Students will identify integers and compute sums of integers. They will construct a coordinate graphing system in order to locate the position of coordinate points.

M.6.10.1 Locate an integer on a number line, compare and order integers and relate integers to real-life situations.

M.6.10.2 Compute sums of integers.

M.6.10.3 Construct a coordinate graphing system and locate the position of coordinate points.

M. 6.11 Students will distinguish between ratios and rates to formulate and solve proportions related to real life situations.

M.6.11.1 Identify the appropriate ratio that matches a given real-life situation.

M.6.11.2. Find equivalent ratios .

M.6.11.3 Identify the appropriate rate that matches a given real-life situation.

M.6.11.4 Identify percents from visual models.