



Montezuma Community Schools

504 N 4th Street
Montezuma, IA 50171
Phone: 641.623.5129

Fax: 641.623.5733

Common Core Standards: Sixth Grade

Ratios and Proportional Relationships

- Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. (6.RP.1)
- Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. (6.RP.2)

The Number System

- Interpret and compute quotients of fractions, and solve word problems involving division of fraction by fractions. (6.NS.1)
- Fluently add, subtract, multiply and divide multi-digit decimals using the standard algorithm for each operation. (6.NS.3)
- Understand ordering and absolute value of rational numbers (6.NS.7)
- Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate. (6.NS.8)

Expressions and Equations

- Write, read, and evaluate expressions in which letters stand for numbers. (6.EE.2)
- Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers. (6.EE.7)

Geometry

- Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. (6.G.1)
- Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. (6.G.2)

Statistics and Probability

- Display numerical data in plots on a number line, including dot plots, histograms and box plots. (6.SP.4)
- Summarize numerical data sets in relation to their context. (6.SP.5)

Learning Targets:	Student <i>I Can</i> Statements:	Report Card:
<ul style="list-style-type: none">• Students understand the characteristics of the additive and multiplicative situations. {6.RP.1}	<ul style="list-style-type: none">• I can understand the relationship between addition and multiplication using ratios. {6.RP.1}	<ul style="list-style-type: none">• Ratios (Unit Rate)
<ul style="list-style-type: none">• Students understand the characteristics of multiplicative comparison situations, rate and ratio language, and techniques for determining	<ul style="list-style-type: none">• I can understand and apply unit rate as a ratio to compare two quantities {6.RP.2}	<ul style="list-style-type: none">• Ratios (Unit Rate)

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<p>unit rates. {6.RP.2}</p> <ul style="list-style-type: none"> Students understand strategies for representing fractions and operations on fractions using visual models and the inverse relationship between multiplication and division. {6.NS.1} Students understand the place value conventions (i.e. a digit in one place represents 10 times as much as it would represent in the place to its right and 1/10 of what it represents in the place to its right.) Students understand strategies for computing answers to complex addition, subtraction, multiplication, and division problems involving multi-digit decimals including the standard algorithm for each operation. {6.NS.3} Students understand, use, and interpret absolute value and inequality notation. {6.NS.7} 	<ul style="list-style-type: none"> I can represent a fraction and operations on fractions using visual models. (fractions strips, or pictures) {6.NS.1} I can divide and multiply a fraction by a fraction. {6.NS.1} I can accurately find quotients of fractions by fractions using visual models/equations. {6.NS.1} I can justify solutions to division problems involving fractions using the inverse relationship between multiplication and division. {6.NS.1} I can understand and read decimals to the thousandths place. I can choose the most appropriate strategy for computing answer. {6.NS.3} I can solve problems involving multi-digit decimals by adding, subtracting, multiplying and dividing. {6.NS.3} I can compare and order positive and negative rational numbers by absolute value. {6.NS.7} I can use number line models to explain 	<ul style="list-style-type: none"> Fractions [x & / of like, unlike and mixed #s Compare & Order Fractions & Decimals Multiply & Divide Decimals Integers[x, /, and absolute value]
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<ul style="list-style-type: none"> Students understand strategies for creating coordinate graphs and strategies for finding vertical and horizontal distance on coordinate graphs including using absolute value. {6.NS.8} Students understand the conventions of exponential notation and factorization strategies for whole numbers. {6.EE.2} Students understand the translation between verbally stated situations and mathematical symbols and notation. {6.EE.8} Students understand appropriate units for measuring area: square inches, square feet, 	<p>absolute value concepts. {6.NS.7}</p> <ul style="list-style-type: none"> I can graph points using ordered pairs. {6.NS.8} I can solve and interpret real world and mathematical problems on a coordinate plane. {6.NS.8} I can determine the lengths of line segments on a coordinate plan when the line segments joins points with the same first coordinate. {6.NS.8} I can use order of operations (addition, subtraction, multiplication, division, and exponents) with parentheses to solve for variables in expressions. {6.EE.2} I can use terminology related to algebraic expressions (sum, term, product, factor, quotient or coefficient) to communicate the meaning of expression and the parts of the expression. {6.EE.2} I can use models to read and solve algebraic equality problems. {6.EE.8} I can use inverse operations and equality to solve equations. {6.EE.8} I can use logical reasoning and to justify my answers. {6.EE.8} I can use models of area to solve real world mathematical problems. {6.G.1} 	<ul style="list-style-type: none"> Ordered Pairs [Identifying & Graphing] Multiply & Divide Exponents Solve Multi-Step Problems (NEW) Geometry [Area & Surface Area]
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<p>etc... and strategies for composing and decomposing shapes to find area. {6.G.1}</p> <ul style="list-style-type: none"> Students understand the volume of a solid object is measured by the number of same-size cubes that exactly fill the interior space of the object and that generalized formulas for determining area and volume of shapes can be applied regardless of the level of accuracy of the shape's measurements (in this case, side lengths). {6.G.2} Students understand techniques for constructing dot plots, histograms, and box plots. {6.SP.4} Students understand the measures of center and how they are affected by the data distribution and context, measures of variability and how they are affected by the data distribution and context, and the methods of determining the mean, median, interquartile range and mean absolute deviation. {6.SP.5} 	<ul style="list-style-type: none"> I can find area of an irregular shape by changing it to a regular shape. {6.G.1} I can accurately compute area of rectangles using multiplication and the formula $A = l \times w$. {6.G.1} I can use models to find volume of a rectangular prism. {6.G.2} I can use formula $V = lwh$ to solve real-world problems. {6.G.2} I can organize and display data using dot plots, histograms, and box plots. {6.SP.4} I can gather and interpret data. {6.SP.5} I can organize data to find patterns and outliers. {6.SP.5} I can find and understand mean, median, mode and range of data. {6.SP.5} 	<ul style="list-style-type: none"> Geometry [Volume] Create representations of data Gather and Interpret representations of data
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