equivalent - Equations with the same solutions as the original equation are called.

formula - An algebraic equation that relates two or more real-life quantities.

unit rate - A rate per one given unit.

distributive property - The product of $a$ and $(b + c)$: $a(b + c) = ab + ac$ or $(b + c)a = ba + ca$. The product of $a$ and $(b - c)$: $a(b - c) = ab - ac$ or $(b - c)a = ba - ca$.

inverse operations - Operations that undo each other, such as addition and subtraction are called.

properties of equality - What the rules of algebra used to transform equations into equivalent equations are called.

reciprocal - a number multiplied to itself flipped results in a product of 1.

identity - An equation that is true for all values of the variables.

solution step - The result of applying a transformation to an equation when solving the equation.

round off error - The error produced when a decimal result is rounded in order to provide a meaningful answer.

variable - A letter that is used to represent one or more numbers.

linear equation - An equation in which the variable is raised to the first power and does not occur in a denominator.
"y" coordinate - The second number in an ordered pair.

"x" axis - The horizontal axis in a coordinate plane.

function - A rule that establishes a relationship between two quantities, called the input and the output. For each input, there is exactly one output.

coordinate plane - Formed by two real number lines that intersect at a right angle.

"y" intercept - The y-coordinate of a point where a graph crosses the y-axis.

ordered pair - A pair of numbers used to represent a point in a plane.

scatter plot - A graph of pairs of numbers that represent real-life situations. It is a way to analyze the relationship between two quantities.

"y" axis - The vertical axis in a coordinate plane.

linear equation - An equation in which the variable is raised to the first power and does not occur in a denominator, inside a square root symbol, or inside an absolute value symbol.

"x" coordinate - The first number in an ordered pair.

relation - Any set of ordered pairs (x, y).

"x" intercept - The x-coordinate of a point where a graph crosses the x-axis.

slope - The number of units a nonvertical line rises or falls for each unit of horizontal change from left to right.
slope-intercept form - A linear equation written in the form of \( y = mx + b \). The slope of the line is \( m \). The y-intercept is \( b \).

positive correlation - When the points on a scatter plot can be approximated by a line with positive slope.

best fitting line - A line that best fits the data points on a scatter plot.

standard form - A linear equation of the form \( Ax + By = C \) where \( A, B, \) and \( C \) are real numbers and \( A \) and \( B \) are not both zero.

linear extrapolation - A method of estimating the coordinates of a point that lies to the right or left of all of the given data points.

"x" intercept - The x-coordinate of a point where a graph crosses the x-axis.

"y" intercept - The y-coordinate of a point where a graph crosses the y-axis.

slope - The number of units a nonvertical line rises or falls for each unit of horizontal change from left to right.

linear interpolation - A method of estimating the coordinates of a point that lies between two given data points.

negative correlation - When the points on a scatter plot can be approximated by a line with negative slope.
equivalent inequalities - Inequalities with the same solution(s).

absolute value - The distance between the origin and the point representing the real number.

compound inequality - Two inequalities connected by and or or.

mean - The sum of \( n \) numbers divided by \( n \). Also known as average.

median - The middle number of a collection of \( n \) numbers when the numbers are written in numerical order. If \( n \) is even, the median is taken to be the average of the two middle numbers.

quartiles - Three numbers that separate a set of data into four parts.

measure of central tendency - A number that is used to represent a typical number in a data set.

stem and leaf plot - An arrangement of digits that is used to display and order numerical data.

half plane - In a coordinate plane, the region on either side of a boundary line.

solution - An ordered pair \((x, y)\) that, when substituted for the variable in an inequality, results in a true statement is a _______ of a linear inequality.

mode - The number that occurs most frequently in a collection of \( n \) numbers.
slope - The number of units a nonvertical line rises or falls for each unit of horizontal change from left to right.

compound inequality - Two inequalities connected by and or or.

"x" intercept - The x-coordinate of a point where a graph crosses the x-axis.

"y" intercept - The y-coordinate of a point where a graph crosses the y-axis.

linear combination - An equation obtained by adding one of two equations (or a multiple of one of the equations) to the other equation in a linear system.

coefficient - A number multiplied by a variable in a term.

ordered pair - A pair of numbers used to identify a point in a plane.

linear system - Two or more linear equations in the same variables.
evaluating - To find the value of an expression by replacing each variable by a number.

exponent - The number or variable that represents the number of times the base is used as a factor.

exponential growth - A quantity that is increasing by the same percent in each unit of time $t$ where $C$ is the initial amount.

base - The number or variable that is used as a factor in repeated multiplication.

decay factor - The expression $1 - r$ in the exponential decay model where $r$ is the decay rate.

time period - The variable $t$ in the exponential growth and decay models.

growth factor - The expression $1 + r$ in the exponential growth model where $r$ is the growth rate.

growth rate - The variable $r$ in the exponential growth model.

exponential decay - A quantity that is decreasing by the same percent in each unit of time $t$ where $C$ is the initial amount.

power - The result of a repeated multiplication.
radical expression - An expression that involves square roots.

parabola - The U-shaped graph of a quadratic function.

quadratic equation - An equation that can be written in the form $ax^2 + bx + c = 0$, where $a$ does not equal 0.

roots - The solutions of $ax^2 + bx + c = 0$.

radicand - The number or expression inside a radical symbol.

square root - If $b^2 = a$, then $b$ is a ______ of $a$.

irrational number - A number that cannot be written as the quotient of two integers.

percent square - A number whose square roots are integers or quotients of integers.

discriminant - The expression $b^2 - 4ac$ where $a$, $b$, and $c$ are coefficients of the quadratic equation $ax^2 + bx + c = 0$. 
zero product property - If \( a \) and \( b \) are real numbers and \( ab = 0 \), then \( a = 0 \) or \( b = 0 \).

like terms - Terms that have the same variable raised to the same power.

prime factor - A factor that is not the product of polynomials having integer coefficients.

monomial - A polynomial with only one term.

factored form - A polynomial that is written as the product of two or more prime factors.

trinomial - A polynomial with three terms.

degree - The largest degree of the terms of a polynomial.

degree of term - The exponent of the variable of a term.

discriminant - The expression \( b^2 - 4ac \) where \( a, b, \) and \( c \) are coefficients of the quadratic equation \( ax^2 + bx + c = 0 \).

leading coefficient - The coefficient of the first term in a polynomial written in standard form.

binomial - A polynomial with two terms.
base number - The number that is being compared to in any percent equation. The number \( b \) in the verbal model \( a \) is \( p \) percent of \( b \).

LCD - Abbreviation of the least common multiple of the denominators of two or more fractions.

rational expression - A fraction whose numerator, denominator, or both numerator and denominator are nonzero polynomials.

polynomial - \( 5x^3 + 8x - 2 \) is an example in standard form.

rational number - A number that can be written as the quotient of two integers.

constant of variation - The constant in a variation model. It is represented by the variable \( k \).

proportion - An equation that states that two ratios are equal.

extraneous solution - A trial solution that does not satisfy the original equation.