# Grade 6 - Module 1

## Terminology

### New or Recently Introduced Terms

- **Ratio** – a comparison of any two quantities
- **Rate** – a ratio that compares two quantities with different units of measure
- **Unit Rate -** a comparison of two measurements in which the second value is 1.

  Examples: miles per hour, items per dollar, words per minute
- **Value of a Ratio** (For the ratio $A:B$, the value of the ratio is the quotient $A/B$.)
- **Equivalent Ratios** Ratios that have the same value.
- **Percent** Percent of a quantity is a rate per $100$.
- **Double Number Line**

- **Ratio Table** (A table listing pairs of numbers that form equivalent ratios

### Familiar Terms and Symbols[1]

- Convert
- Tape Diagram
- Coordinate Plane

# Grade 6 - Module 2

## Terminology

### New or Recently Introduced Terms

- **Greatest Common Factor** The largest positive integer that divides into two or more integers without a remainder; the GCF of $24$ and $36$ is $12$ because when all of the factors of $24$ and $36$ are listed, the largest factor they share is $12$.
- **Least Common Multiple** The smallest positive integer that is divisible by two or more given integers without a remainder; the LCM of $4$ and $6$ is $12$ because when the multiples of $4$ and $6$ are listed, the smallest or first multiple they share is $12$.
- **Multiplicative Inverses** Two numbers whose product is 1 are multiplicative inverses of one another. For example, $\frac{3}{4}$ and $\frac{4}{3}$ are multiplicative inverses of one another because $\frac{3}{4} \times \frac{4}{3} = \frac{4}{3} \times \frac{3}{4} = 1$. Multiplicative inverses do not always have to be the reciprocal. For example $\frac{1}{5}$ and $\frac{10}{2}$ both have a product of $1$, which makes them multiplicative inverses.

### Familiar Terms and Symbols[2]

- Prime Number
- Composite Number
- Factors
- Multiples
- Dividend
- Divisor
- Reciprocal
- Algorithm
- Distributive Property

  Estimate

# Grade 6 - Module 3

## Terminology

### New or Recently Introduced Terms

- **Absolute Value** The *absolute value* of a number is the distance between the number and zero on the number line. For example, $|3| = 3$, $|-4| = 4$, etc.
- **Charge** A *charge* is the amount of money a person must pay, as in a charge to an account, or a fee charged
- **Credit** Money *returned* to an account. For instance, when a deposit is made into a checking account, the money is *credited* to the account. A credit is the opposite of a debit.
- **Debit** Money taken out of an account. For instance, money will be deducted from the related bank account.
- **Deposit** A *deposit* is the act of putting money into a bank account
- **Elevation** *Elevation* is the height of a person, place, or thing above a certain reference level
- **Integers** positive numbers, negative numbers, or zero, but not fractions or decimals.

  Example: …, -3,-2,-1, 0, 1, 2, 3, …
- **Negative Number** A *negative number* is a number less than zero.
- **Opposite** Two numbers that are the same distance from 0 on the number line.
- **Positive Number** A *positive number* is a number greater than zero.
- **Quadrants** The four sections of the coordinate plane formed by the intersection of the axes are called *quadrants*.
- **Rational Number** Numbers that can be written as the ratio of two integers with a non-zero denominator. Rational numbers are all integers, fractions, repeating decimals, and terminating decimals.
- **Withdraw** To *withdraw* is to take away; for example, to take money out of a bank account.
- **Withdrawal** A *withdrawal* is the act of taking money out of a bank account.

### Familiar Terms and Symbols[3]

- Coordinate Pair
- Coordinate Plane
- Fraction
- Line of Symmetry
- Ordered Pair
- Origin
- Quadrant
- Symmetry
- Whole Numbers
- $x$-Axis
- $x$-Coordinate
- $y$-Axis
- $y$-Coordinate

## Suggested Tools and Representations

- Horizontal and Vertical Number Lines
- Coordinate Plane

# Grade 6 - Module 4

## Terminology

### New or Recently Introduced Terms

- **Equation A mathematical statement containing an equal sign, to show that two expressions are equal.**
- **Expression One or more terms that may include variables, constants, and operations.**
- **Example 3(x+y) -8 + 2y**
- **Simple Expression** A *simple expression* is a number, a letter that represents a number, a product whose factors are either numbers or letters involving whole number exponents, or sums and/or differences of such products. Each product in a simple expression is called a *term*, and the evaluation of the numbers in the product is called the *coefficient of the term.*
- **Equivalent expressions** A number sentence is said to be *true* if both numerical expressions are equivalent.
- **Variable A letter or symbol used to represent a number.**
- **Coefficient The numerical factor of a term containing a variable.**
- **Example In 7x + 3, the coefficient is 7.**

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- **Inequality  Not equal in size, amount, or value.  An inequality is the opposite of equality.**
- **Example  4 >-7**

### Familiar Terms and Symbols[4]

- Distribute
- Expand
- Factor
- Number Sentence
- Product
- Properties of Operations (distributive, commutative, associative)
- Quotient
- Sum
- Term
- True or False Number Sentence
- Variable or Unknown Number

## Suggested Tools and Representations

- Bar model
- Geometric figures
- Protractors

# Grade 6 - Module 5**

## Terminology

### New or Recently Introduced Terms

- **Triangular Region** A *triangular region* is the union of the triangle and its interior.
- **Altitude and Base of a Triangle** An *altitude* of a triangle is a perpendicular segment from a vertex of a triangle to the line containing the opposite side. The opposite side is called the *base*. .
- **Pentagon** A five sided figure.
- **Hexagon** A six sided figure.
- **Parallel Lines** Two lines are *parallel* if they do not, and will not, intersect.
- **Cube** A *cube* is a right rectangular prism all of whose edges are of equal length.
- **Surface of a Prism** The *surface of a prism* is the union of all of its faces (the base faces and lateral faces).
- **Composite polygon  A polygon that can be divided into simpler figures.**

### Familiar Terms and Symbols[5]

- Perimeter
- Area
- Volume
- Angle
- Triangle
- Quadrilateral
- Parallelogram
- Trapezoid
- Rectangle
- Square
- Perpendicular
- Parallel
- Segment
- Length of a Segment

## Suggested Tools and Representations

- Nets
- Prisms
- Coordinate Planes
- Rulers

# Grade 6 - Module 6**

## Terminology

### New or Recently Introduced Terms

- **Statistical Question** A question that anticipates variability in the data that would be collected in order to answer the question.
- **Median** A measure of center appropriate for skewed data distributions. It is the middle value when the data are ordered from smallest to largest if there are an odd number of observations and half way between the middle two observations if the number of observations is even.
- **Mean** A measure of center appropriate for data distributions that are approximately symmetric. It is the average of the values in the data set. Two common interpretations of the mean are as a "fair share" and as the balance point of the data distribution.
- **Mode The number(s) that occur most often in a data set.**
- **Dot Plot** A plot of numerical data along a number line.
- **Histogram** A graphical representation of a numerical data set that has been grouped into

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intervals. Each interval is represented by a bar drawn above that interval that has a height corresponding to the number of observations in that interval.

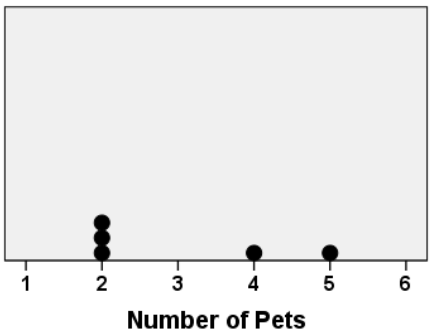
- **Box Plot** A graph of five numerical summary measures: the minimum, lower quartile, median, upper quartile, and the maximum. It conveys information about center and variability in a data set.
- **Variability** Variability in a data set occurs when the observations in the data set are not all the same.
- **Deviations from the Mean** The differences calculated by subtracting the mean from the observations in a data set.
- **Mean Absolute Deviation (MAD)** A measure of variability appropriate for data distributions that are approximately symmetric. It is the average of the absolute value of the deviations from the mean.
- **Interquartile Range (IQR)** A measure of variability appropriate for data distributions that are skewed. It is the difference between the upper quartile and the lower quartile of a data set and describes how spread out the middle 50% of the data are.

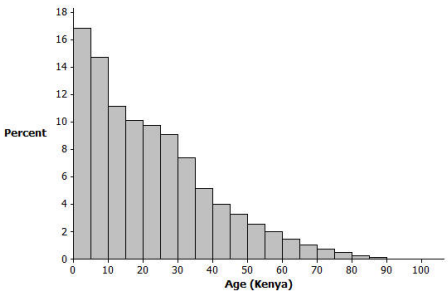
### Familiar Terms and Symbols[6]

- Line Plot or Dot Plot

## Suggested Tools and Representations

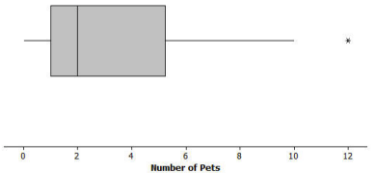
- Dot Plots
- Histograms
- Box Plots



**Dot Plot**

**Histogram**




**Box Plot**