

6th Grade Common Core Math Vocabulary

absolute value The distance of a number from zero on the number line. Always positive. Magnitude for a positive or negative number in a real world situation.

acute triangle A triangle with no angle measuring 90° or more.

addend Any number being added. $7+3=10$ seven and three are addends

Additive Identity Property of 0 Adding zero to a number gives a sum identical to the given number.

additive inverses Two numbers whose sum is 0 are additive inverses of one another. $-7+7=0$

algebraic expression A group of numbers, symbols, and variables that express an operation or a series of operations. $3x+2$

algorithm A step-by-step method for computing.

altitude The perpendicular distance from a vertex to the opposite side of a plane figure.

analyze study or examine something in detail

area The measure, in square units, of the interior region of a 2-dimensional figure or the surface of a 3-dimensional figure.

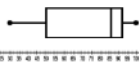
Associative Property of Addition The sum stays the same when the grouping of addends is changed. $(a + b) + c = a + (b + c)$, where a , b , and c stand for any real numbers.


Associative Property of Multiplication The product stays the same when the grouping of factors is changed. $(a \times b) \times c = a \times (b \times c)$, where a , b , and c stand for any real numbers.

attribute A characteristic. e.g. size, shape or color

axis (pl. axes) A reference line from which distances or angles are measured in a coordinate grid.

base of a polygon The side of a polygon that is perpendicular to the altitude or height.

box plot A diagram that shows the five number summary of a distribution. (Five number summary includes lowest value, lower quartile, median, upper quartile, and highest value.) 

cluster A group of the same or similar elements gathered or occurring closely together on a graph. 

coefficient A numerical factor in a term of an algebraic expression. $5x+3$ five is the coefficient

common denominator For two or more fractions, a common denominator is a common multiple of the denominators.

common factor Any common factor of two or more numbers.

common multiple Any common multiple of two or more numbers.

Commutative Property of Addition The sum stays the same when the order of the addends is changed. $a + b = b + a$, where a and b are any real numbers.

Commutative Property of Multiplication The product stays the same when the order of the factors is changed. $a \times b = b \times a$, where a and b are any real numbers.

compare to decide if one number is greater than, less than or equal to another

compose To put together, as in numbers or shapes.

compute Calculate, figure out

constant A number with a value that is always the same. $5x+4$ four is the constant

constant speed Movement at a fixed (constant) distance per unit of time.

constraint/condition limitation or restriction


convert change-convert feet to inches: 1 foot = 12 inches change it from feet to inches

coordinate pair A pair of numbers that gives the coordinates of a point on a grid in this order (horizontal coordinate, vertical coordinate). Also known as an ordered pair. $(5,4)$

coordinate plane A 2-dimensional system in which the coordinates of a point are its distances from two intersecting, usually perpendicular, straight lines called axes. (Also called coordinate *grid* or coordinate *system*.)

coordinate system Also known as a coordinate grid. A 2-dimensional system in which the coordinates of a point are its distances from two intersecting, usually perpendicular, straight lines called axes.

coordinates An ordered pair of numbers that identify a point on a coordinate plane. $(5,4)$

cube A rectangular solid having six congruent square faces. 

customary system A system of measurement used in the U.S. The system includes units for measuring length, capacity, and weight.

data Information, especially numerical information. Usually organized for analysis.

decimal a number with one or more points to the right of the decimal point. In 7.46, forty six hundredths is the decimal or pieces (not the whole number) amount

decompose To separate into components or basic elements.

denominator The quantity below the line in a fraction. It tells the number of equal parts into which a whole is divided.

dependent variable In a function, a variable whose value is determined by the value of the related independent variable.

describe Give an account in words of (someone or something), including *all* the relevant characteristics, qualities, or events.

difference The amount that remains after one quantity is subtracted from another.

distance amount of space between two things

distribution A table that shows how many there are of each type of data. Described by the center, spread and overall shape of the data.

Distributive Property $a \times (b + c) = (a \times b) + (a \times c)$ and $a \times (b - c) = (a \times b) - (a \times c)$, where a , b , and c stand for any real numbers.

divide to share equally

dividend A quantity to be divided.

divisor The quantity by which another quantity is to be divided.

dot plot Also known as a line plot. A diagram showing frequency of data on a number line.

double number line diagram A graphic diagram that shows a proportional relationship between two quantities.

equation A statement that two mathematical expressions are equal.

equilateral triangle A triangle whose sides are all the same length.

equivalent Naming the same number.

equivalent expression the expressions name the same number no matter which value is substituted in for the variable. For ex: $y+y+y=3y$

equivalent ratio If two ratios have the same value when simplified, then they are called **equivalent ratios**.

evaluate To find the value of a mathematical expression.

explain exact description, to make plain or clear

exponent The number that tells how many equal factors there are.

expression A variable or combination of variables, numbers, and symbols that represents a mathematical relationship.

factor An integer that divides evenly into another.

first quartile The first quartile is the middle (the median) of the lower half of the data on a box plot. One-fourth of the data lies below the first quartile and three-fourths lies above. Also known as Q1.

fluently Flowing effortlessly, express oneself easily, if you know your facts fluently, you know them right away and do not have to compute them

formula A general mathematical statement or rule.

fraction A way of representing part of a whole or part of a group by telling the number of equal parts in the whole and the number of parts you are describing.

gap/hole A place on a graph where no data values are present.

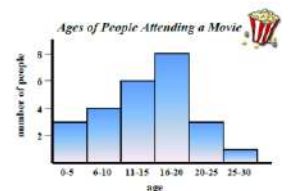
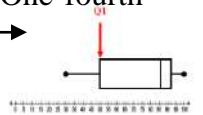
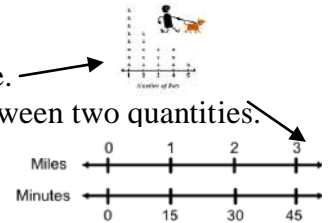
graph A pictorial device used to show a numerical relationship. To graph means to plot points on a coordinate grid.

greater than $>$ Greater than is used to compare two numbers when the first number is larger than the second number.

greatest common factor GCF. The largest factor of two or more numbers. (Whole $\# \leq 100$)

height The perpendicular distance from a vertex to the opposite side of a plane figure.

histogram A bar graph in which the labels for the bars are numerical intervals.



horizontal parallel to the horizon, perpendicular to vertical, *think horizon line (imaginary line where sun meets land)

identify

improper fraction A fraction with a numerator greater than (or equal to) its denominator.

independent variable A variable in a mathematical equation whose value determines that of a dependent variable.

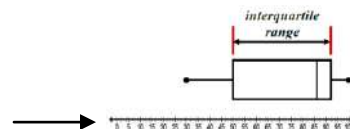
inequality A mathematical sentence that compares two unequal expressions using one of the symbols $<$, $>$, \leq , \geq , or \neq .

infinite Having no boundaries or limits.

integers The set of whole numbers and their opposites.

interpret to explain or tell the meaning of

interquartile range The difference between the upper quartile and the lower quartile.



isosceles triangle A triangle that has at least two congruent sides.

least common multiple LCM. The smallest common multiple of a set of two or more numbers (≤ 12).

length measurement or extent of something from end to end, how long

less than $<$ Less than is used to compare two numbers when the first number is smaller than the second number.

line plot Also known as a dot plot. A diagram showing frequency of data on a number line.

lower extreme The smallest or least number out of a data set, usually farther away from interquartile range than other data in set. (Also known as minimum.)

magnitude Size; a property by which something can be compared as larger or smaller than other objects of the same kind.

manipulate move, arrange

maximum The largest amount; the greatest number in a data set.

mean The sum of a set of numbers divided by the number of elements in the set. (A type of average)

mean absolute deviation In statistics, the absolute deviation of an element of a data set is the absolute difference between that element and a given point.

measure of center An average; a single value that is used to represent/summarize a collection of data. Three commonly used types of averages are mode, median, and mean. (Also called measures of central tendency or measures of average.)

measure of variation A measure of how much a collection of data is spread out. It describes how values vary with a single number. Commonly used types include range and quartiles. (Also known as spread or dispersion.) (Interquartile range and/or mean absolute deviation)

median The middle number of a set of numbers when the numbers are arranged from least to greatest, or the mean of two middle numbers when the set has two middle numbers.

metric system A system of measurement based on tens. The basic unit of capacity is the liter. The basic unit of length is the meter. The basic unit of mass is the gram.

minimum The smallest amount; the smallest number in a data set.

minuend In subtraction, the minuend (43.2) is the number you subtract from. $43.2 - 27.9 = 15.3$

mixed number A number with an integer and a fraction part.

multi digit having more than one digit (number). Seven 7 is a single digit, whereas seventy two 72 or seven hundred forty two 742 are both multi digit numbers

multiple The product of a whole number and any other whole number. 7, 14, 21, 28...are multiples of seven

Multiplicative Identity Property of 1 The product of any number and 1 is equal to the original number.

multiplicative inverses Two numbers whose product is 1. Also called reciprocals. $5 \times \frac{1}{5} = 1$

negative numbers Numbers less than 0.

net A 2-dimensional shape that can be folded into a 3-dimensional figure is a net of that figure. (Also called a network.)

multiplicative inverses

number line A diagram that represents numbers as points on a line.

numerator The number or expression written above the line in a fraction.

numerical expression A mathematical statement including numbers and operations. $5 - 4$ is a numerical expression

obtuse triangle A triangle that contains one angle with a measure greater than 90° (obtuse angle) and two acute angles.

opposite Having a different sign but the same numeral. Zero is its own opposite. Opposites reflect each other on the coordinate grid.

order Putting things into their correct place following some rule.

Order of Operations Rules describing what sequence to use in evaluating expressions. (1) Evaluate within grouping symbols. (2) Do powers or roots. (3) Multiply or divide left to right. (4) Add or subtract left to right.

ordered pair A pair of numbers that gives the coordinates of a point on a grid in this order (horizontal coordinate, vertical coordinate). Also known as a coordinate pair.

origin The intersection of the x - and y -axes in a coordinate plane, described by the ordered pair $(0, 0)$.

outlier A number in a set of data that is much larger or smaller than most of the other numbers in the set.

percent A special ratio that compares a number to 100 using the symbol $\%$. Find percent as a rate per 100.

plot To place points on a graph or coordinate plane.

point the exact location in space represented by a dot

polygon A closed figure formed from line segments that meet only at their endpoints.

positive numbers Numbers that are greater than zero.

prism A 3-dimensional figure that has two congruent and parallel faces that are polygons. The remaining faces are parallelograms.

product The result of multiplication.

proportion An equation showing that two ratios are equivalent.

pyramid A polyhedron whose base is a polygon and whose other faces are triangles that share a common vertex.

quadrants The four sections of a coordinate grid that are separated by the axes.

quadrilateral A four-sided polygon.

quantitative numbers dealing with numbers as opposed to qualitative which deals with attributes or characteristics

quantity An amount.

quotient The result of the division of one quantity by another.

range The difference between the greatest number and the least number in a set of numbers.

rate A ratio comparing two different units.

ratio A comparison of two numbers using division.

rational number A number that can be expressed as a ratio of two integers. It is a point on a number line.

reciprocals Two numbers whose product is 1. Also called multiplicative inverses.

rectangle A quadrilateral with two pairs of congruent, parallel sides and four right angles.

reflection flip or mirror image

right rectangular prism A prism with six rectangular faces where the lateral edge is perpendicular to the plane of the base.

right triangle A triangle that has one 90° angle.

scalene triangle A triangle that has no congruent sides.

signed number Positive or negative number. Signs $+$ for positive, $-$ for negative

solid figure A geometric figure with 3 dimensions. L, W, D

solving equations/inequalities which values from a specific set make it true

spread A measure of how much a collection of data is spread out. Commonly used types include range and quartiles. (Also known as measures of variation or dispersion.)

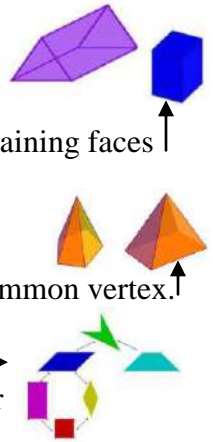
square-based pyramid A polyhedron whose base is a square and whose other faces are triangles that share a common vertex.

statistical variability A variability or spread in a variable or a probability distribution. Common examples of measures of statistical dispersion are the variance, standard deviation, and interquartile range.

statistics The science of collecting, organizing, representing, and interpreting data.

statistical question a question that anticipates variability or differences in data (Ex: How old are the kids in my school? should be a wide variety of answers Non ex: How old am I? no variability, one answer)

substitution The replacement of the letters in an algebraic expression with known values.



$$\begin{array}{r} \text{quotient} \\ 9 \overline{)137} \\ \underline{90} \\ 47 \\ \underline{45} \\ 2 \end{array}$$

subtrahend In subtraction, the subtrahend (8.29) is the number being subtracted. $27.34 - 8.29 = 19.05$

sum The result of addition.

surface area The total area of the faces (including the bases) and curved surfaces of a solid figure.

table An organized way to list data. Tables usually have rows and columns of data.

tape diagram A drawing that looks like a segment of tape, used to illustrate number relationships. Also known as a strip diagram, bar model, fraction strip, or length model.

term A number, variable, product, or quotient in an expression. A term is *not* a sum or difference.

transform change

triangle a polygon with 3 sides and 3 angles

third quartile The third quartile is the middle (the median) of the upper half of the data on a box plot. One-fourth of the data lies above the third quartile and three-fourths lies below. Also known as Q3.

three-dimensional 3-D, solid figure. Existing in 3 dimensions; having length, width, and height.

triangular prism A prism with three rectangular faces and two triangular bases where the lateral edge is perpendicular to the plane of the base.

triangular pyramid A pyramid with a triangular base.

unit cube A precisely fixed quantity used to measure volume.

unit pricing pricing of goods on the basis of cost per *unit* of measure

unit rate A rate with a denominator of 1.

upper extreme The greatest or largest number out of a data set, usually farther away from inter quartile range than other data in set. (Also known as maximum.)

value The amount something is worth.

variable A quantity that changes or can have different values. A symbol, usually a letter, that can stand for a variable quantity. Any unknown number or any number in a specific set

vertex (vertices) The point at which two line segments, lines, or rays meet to form an angle. (plural – vertices)

vertical at right angles to the horizon, straight up and down, *think basketball player's vertical jump

visual model picture representation of an answer, show

volume The number of cubic units it takes to fill a figure.

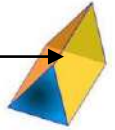
whole numbers Any of the numbers 0, 1, 2, 3, 4, 5, and so on.

x-axis In a Cartesian grid, the horizontal axis.

x-coordinate In an ordered pair, the value that is always written first.

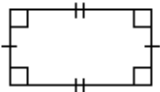
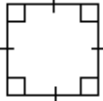
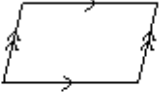

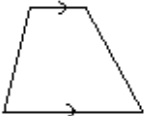
y-axis In a Cartesian grid, the vertical axis.

y-coordinate In an ordered pair, the value that is always written second.



$V=lwh$	Rectangular Solid	Volume = Length X Width X Height
$V=bh$	Prisms	Volume = Base X Height
$A=6s^2$	Surface area of a cube	
$V=s^3$	Volume of a cube	

Special quadrilaterals

<i>Quadrilateral</i>	<i>Properties</i>	
<i>Rectangle</i>	4 right angles and opposite sides equal	
<i>Square</i>	4 right angles and 4 equal sides	
<i>Parallelogram</i>	Two pairs of parallel sides and opposite sides equal	
<i>Rhombus</i>	Parallelogram with 4 equal sides	
<i>Trapezium</i>	Two sides are parallel	
<i>Kite</i>	Two pairs of adjacent sides of the same length	