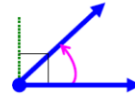


4th Grade Common Core Math Vocabulary

a.m. A time between 12:00 midnight and 12:00 noon.

acute angle An angle with a measure less than 90° .



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

add To combine or join together; put together two or more quantities.

addend Any number being added. $6+8=14$ six and eight are both addends, 14 is the sum.

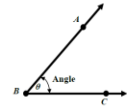
additive comparison Problems that ask how much more (or less) one amount is than another.

Additive Identity Property of 0 When you add zero to a number, the sum is that same number.

algorithm A step-by-step method for computing.

analyze study or examine something in detail

angle Two rays that share an endpoint.



angle measure The measure of the size of an angle. It tells how far one side is turned from the other side. A one degree angle turns through $1/360$ of a full circle.

arc Part of a circle's curve between any two of its points.

area The measure, in square units, of the inside of a plane figure.

area model A model of multiplication that shows each place value product.

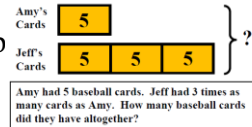
array An arrangement of objects in equal rows.

Associative Property of Addition Changing the grouping of three or more addends does not change the sum.

Associative Property of Multiplication Changing the grouping of three or more factors does not change the product.

attribute A characteristic of an object, such as color, shape, size, etc. (property)

bar model A model that uses bars to represent known and unknown quantities and the relationship between these quantities.



base Any side of a plane figure. Usually thought of as a side where the figure "sits."

base-ten numeral form A common way of writing a number using digits. The value of a numeral depends on where it appears in the number. (also known as standard form) 12,356

base-ten numerals Any of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9. The symbols can represent any amount based on a place value system of grouping by tens. (also known as digits)

benchmark A known size or amount that can be used as a reference to help understand a different size or amount. A benchmark can be used to estimate measurement.

benchmark fractions Fractions that are commonly used for estimation. A benchmark fraction helps you compare two fractions. one half, one third, one fourth, three fourths, two thirds are all benchmark fractions

capacity refers to the amount of liquid a container can hold.

centimeter A metric unit of length equal to 0.01 of a meter. *think about a finger's width

circle A plane figure with all points the same distance from a fixed point called a center.

classify To sort into categories or to arrange into groups by attributes.

clockwise The same direction that the hands on a clock move.

common belonging to or shared by, see examples below

common denominator For two or more fractions, a common denominator is a common multiple of the denominators. three fourths and two fourths have four as a common denominator

common factor Any common factor of two or more numbers. six is a common factor of both 12 and 24

common multiple Any common multiple of two or more numbers. six is a common multiple of both 2 and 3

common numerator For two or more fractions, a common numerator is a common multiple of the numerators.

Commutative Property of Addition Changing the order of the addends does not change the sum.

Commutative Property of Multiplication Changing the order of the factors does not change the product.

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

compatible numbers Numbers that are easy to compute mentally and are close in value to the actual numbers. Compatible numbers can be used when estimating.

compose To put together smaller numbers to make larger numbers.

composite number A number greater than 0 that has more than two different factors.

congruent Having exactly the same size and shape.

counterclockwise The opposite direction that the hands move on a clock.

counting number A whole number that can be used to count a set of objects. Counting numbers do not include 0. (e.g., 1, 2, 3, 4...)

cup A customary unit of capacity. 1 cup = 8 fluid ounces

customary system A system of measurement used in the U.S. The system includes units for measuring length, capacity, and weight. Most everyone else uses the metric system. (see chart at end)

data A collection of information gathered for a purpose. Data may be in the form of either words or numbers.

day The length of time it takes the Earth to make a complete rotation. 24 hours = 1 day

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

decimal fraction A fractional number with a denominator of 10 or a power of 10. It can be written with a decimal point.

decimal notation Uses digits 0-9 and a decimal point. For example: 23.56 is in decimal notation

decimal point A dot (.) separating the whole number from the fraction (parts) in decimal notation.

decimeter A metric unit of length. 1 decimeter = 0.1 meter 10 decimeters = 1 meter A hand span is *about* 1 decimeter.

decompose To separate a number into 2 or more parts.

degree (angle measure) A unit for measuring angles. It is based on dividing one complete circle into 360 equal parts. A one degree angle = $1/360$ of a circle

determine To decide or settle upon, figure out

denominator The quantity below the line in a fraction. It tells how many equal parts are in the whole.

diagonal A line that goes through vertices of a polygon that are not next to each other.

difference The amount that remains after one quantity is subtracted from another. Answer in a subtraction problem.

display To show - exhibit - demonstrate

digit Any of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9. (also known as base-ten numerals)

Distributive Property When one of the factors of a product is a sum, multiplying each addend before adding does not change the product.

divide To separate into equal groups and find the number in each group or the number of groups. 56 split into 8 equal groups equals seven in each $56 \div 8 = 7$

dividend A number that is divided by another number. 56 is the dividend in the above example.

divisible A number is divisible by another number if the quotient is a counting number without a remainder.

divisor The number by which another number is divided. 8 is the divisor in $56 \div 8 = 7$

elapsed time The amount of time that has passed. (also known as time interval) 8:00-2:00 six hours elapsed

endpoint A point at either end of a line segment, or a point at one end of a ray.

equal Having the same value. 2 feet=24 inches

equation A mathematical sentence with an equal sign. The amount on one side of the equal sign has the same value as the amount on the other side. $4+3=7$

equivalent decimals Decimals that have the same value. $0.7=0.70$

equivalent fractions Fractions that have the same value. $1/2=2/4$

estimate To find a number close to an exact amount; an estimate tells *about* how much or *about* how many.

expanded form A way to write numbers that shows the place value of each digit. $263 = 200 + 60 + 3$

expression A mathematical phrase without an equal sign. $n+4$

fact family A group of related facts that use the same numbers. (also known as related facts) Fact family for 3, 5, 15: $3 \times 5 = 15$ $15 \div 5 = 3$ $5 \times 3 = 15$ $15 \div 3 = 5$

factor The whole numbers that are multiplied to get a product. $6 \times 7 = 42$ (6 and 7 are factors)

factor pairs A set of two whole numbers that when multiplied will result in a given product. $2 \times 3 = 6$, $1 \times 6 = 6$
The factor pairs for 6 are: 2 and 3, 1 and 6

fluid ounce A customary unit of capacity. 8 fluid ounces = 1 cup

foot A customary unit of length. 1 foot = 12 inches *think ruler

formula A rule that is written as an equation. $A = l \times w$

fraction A way to describe a part of a whole or a part of a group by using equal parts.

fraction greater than one A fraction with the numerator greater than the denominator. $\frac{6}{5}$

fraction less than one A fraction with the numerator less than the denominator. $\frac{5}{6}$

gallon A customary unit of capacity. 1 gallon = 4 quarts

gram The standard unit of mass in the metric system. 1,000 grams = 1 kilogram The mass of a paperclip is about 1 gram.

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

half gallon A customary unit of capacity. half gallon = 2 quarts

height A perpendicular line segment from the base to the top of the figure.

hexagon A polygon with six sides.

horizontal Parallel to the horizon. Horizontal lines go from left to right.

hour A unit of time. 1 hour = 60 minutes 24 hours = 1 day

hundreds The value of a digit that is the third position from the right when describing whole number place value.

hundredth One of the equal parts when a whole is divided into 100 equal parts.

hundredths In the decimal numeration system, hundredths is the name of the next place to the right of tenths.

identify Recognize or distinguish, figure out what it is, name it (Identify this figure: It is a rectangle because it has four right angles and opposite sides the same length.)

Identity Property of Multiplication The property that states that the product of any number and 1 is that number: $n \times 1 = n$

inch A customary unit of length. 12 inches = 1 foot *think width of 2 fingers

intersecting lines Lines that cross at a point.

inverse operations Operations that undo each other. Multiplication and division are inverse operations. $8 \times 5 = 40$ and $40 \div 5 = 8$

interpret to explain or tell the *meaning* of

justify Show or prove to be right or reasonable.

kilogram A metric unit of mass equal to 1000 grams. About two and a half pounds *think small bunny

kilometer A metric unit of length equal to 1000 meters. A kilometer (km) is about the length of 4 city blocks.

length How long something is. The distance from one point to another. Length is measured in units such as inches, feet, centimeters, etc. One dimension of a 2-dimensional or 3-dimensional figure.

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

like denominators Denominators in two or more fractions that are the same.

like numerators Numerators in two or more fractions that are the same.

line A set of connected points continuing without end in both directions.

line of symmetry A line that divides a figure into two congruent halves that are mirror images of each other.

line plot A diagram showing frequency of data on a number line.

line segment A part of a line with two endpoints.

line symmetric figures Figures that can be folded in half and its two parts match exactly.

line symmetry What a figure has if it can be folded in half and its two parts match exactly.

liter The basic unit of capacity in the metric system. 1 liter = 1,000 milliliters *think half a two liter of pop

lowest terms When a fraction is expressed with the fewest possible pieces, it is in lowest terms. (also known as simplest form)

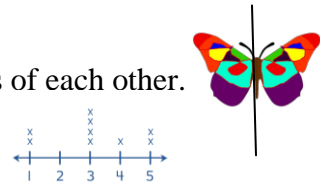
mass The amount of matter in an object. Usually measured by comparing with an object of known mass. While gravity influences weight, it does not affect mass.

mental math or mental calculation Calculations that are done in a student's head out the guidance of pencil and paper, calculators or other aids.

meter A standard unit of length in the metric system. *think length of a light, baseball bat, floor to door knob

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. (see chart at end)

mile A customary unit of length. 1 mile = 5,280 feet



milliliter A metric unit of capacity. 1,000 milliliters = 1 liter This holds about 10 drops or 1 milliliter.

millimeter A metric unit of length. 1,000 millimeters = 1 meter *think front to back of your fingernail

minute A unit used to measure a short amount of time; there are 60 minutes in one hour.

mixed number A number that has a counting number and a fraction.

model or visual model A picture or representation of answer, to show

month A length of time equal to 28, 30, or 31 days. 12 months = 1 year

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 a multi digit numbers

multiple A product of a given whole number and any other whole number. 12 is a multiple of 3 and 4 because $3 \times 4 = 12$

multiplicative comparison Compare by asking or telling how many times more one amount is than another. e.g., 3 times as many as

Multiplicative Identity Property of 1 If you multiply a number by one, the product is the same as that number. 1 group of 3 = 3 $1 \times 3 = 3$

multiply The operation of repeated addition of the same number. $3 \times 5 = 5 + 5 + 5$

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

number names A way of using words to write a number. (also known as word form)

numerator The number written above the line in a fraction. It tells how many equal parts are described in the fraction.

obtuse angle An angle with a measure greater than 90° but less than 180° .

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

ones The value of a digit that is farthest to the right when describing whole number place value.

order A sequence or arrangement of things. To order fractions, compare two fractions at a time.

Order of Operations A set of rules that tells the order in which to compute. 1. Do operations in parentheses. 2. Multiply and divide in order from left to right. 3. Add and subtract in order from left to right.

ounce A customary unit of weight equal to one sixteenth of a pound. 16 ounces = 1 pound *think a slice of bread

p.m. The time between 12:00 noon and 12:00 midnight.

parallel lines Lines that are always the same distance apart. They do not intersect.

parallelogram A quadrilateral with two pairs of parallel and congruent sides.

parentheses Used in mathematics as grouping symbols for operations. When simplifying an expression, the operations within the parentheses are performed first.

partial product A method of multiplying in which the value of each digit in a factor is multiplied separately, and then the partial products are added together.

partial quotient A method of dividing in which multiples of the divisor are subtracted from the dividend, and then the partial quotients are added together.

pattern A repeating or growing sequence or design. An ordered set of numbers or shapes arranged according to a rule. *Look for what repeats or what is happening from one term to the next term.

perimeter The distance around the outside of a figure.

period In a large number, periods are groups of 3 digits separated by commas or by spaces.

perpendicular lines Two intersecting lines that form right angles.

pint A customary unit of capacity. 1 pint = 2 cups *think 2 of your lunch milk cartons=1 pint

place value The value of the place of a digit in a number. (see place value chart at end)

plane figure A two-dimensional figure, two dimensional, L+W, no depth

point The exact location in space represented by a dot.

polygon A closed plane figure made of 3 + sides line segments.

pound A customary unit of weight. 1 pound = 16 ounces *think loaf of bread

prime number A whole number greater than 0 that has exactly two different factors, 1 and itself.

product The answer to a multiplication problem. $6 \times 7 = 42$ 42 is the product/answer

protractor A tool used to measure and draw angles.

quadrilateral A polygon with four sides.

quart A customary unit of capacity. 1 quart = 2 pints or 1 quart = 4 cups

quotient The answer to a division problem.

range The difference between the highest and lowest values (H-L) (described but vocab word not used in CC Standards)

ray A part of a line that has one endpoint and goes on forever in one direction. \longrightarrow

reasonableness An answer that is based on good number sense.

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

recognize Identify (someone or something) from having encountered them before; know again, remember

regroup To rearrange the formation of a group.

regular polygon A polygon with all sides the same length and all angles the same measure.

related facts (fact family) Related addition and subtraction facts or related multiplication and division facts.

Related facts for 3, 5, 8: $3 + 5 = 8$ $8 - 5 = 3$ $5 + 3 = 8$ $8 - 3 = 5$ (also known as fact family)

remainder The amount left over when one number is divided by another.

repeated subtraction Subtracting equal groups to find the total amount of groups. (dividing)

represent show

rhombus A quadrilateral with all four sides equal in length.

right angle An angle that measures exactly 90° .

right triangle A triangle that has one 90° angle.

round a whole number To find the nearest ten, hundred, thousand, (and so on). Mark the place, look to the left, four or less are out of sight. Five or more will buy one more before they, too, are out the door. In those empty right hand spaces, zeros keep their proper places.

rule something that happens every time (for example: 2, 5, 8, 11... the rule is +3)

second A unit used to measure a very short amount of time; there are 60 seconds in one minute.

sequence A set of numbers arranged in a special order or pattern.

simplest form When a fraction is expressed with the fewest possible pieces, it is in simplest form. (also known as lowest terms)

simplify To express a fraction in simplest form.

sketch A quick, rough drawing

specify Identify clearly and definitely

square A parallelogram with four equal angles AND four equal sides.

square unit A unit, such as square centimeter or square inch, used to measure area.

standard form A common or usual way of writing a number using digits. (also known as base-ten numeral form) 12, 376 is in standard form

straight angle An angle that measures exactly 180° . \longleftrightarrow

subtract An operation that gives the difference between two numbers. Subtraction can be used to compare two numbers, or to find out how much is left after some is taken away. (separating parts)

sum The answer to an addition problem. (adding is joining parts)

tens The value of a digit that is the second position from the right when describing whole number place value.

tenth One of the equal parts when a whole is divided into 10 equal parts.

tenths In the decimal numeration, tenths is the name of the place to the right of the decimal point.

term A component of a sequence. A term in a sequence is any number in that sequence. In the sequence: 3, 5, 7, 9... three, five, seven and nine are all terms

thousands The value of a digit that is the fourth position from the right when describing whole number place value.

time interval A duration of a segment of time. (also known as elapsed time)

ton A customary unit of weight. 1 ton (T) = 2,000 pounds A metric ton (t) is a unit of mass equal to 1,000 kilograms (about 2,200 pounds). *think small car

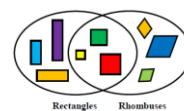
trapezoid A quadrilateral with one pair of parallel sides and one pair of sides that are not parallel.

triangle A polygon with three sides and three angles.

two-dimensional Having length and width. Having area, but not volume, no depth. (plane figure)

unit fraction A fraction that has 1 as its numerator. A unit fraction names 1 equal part of a whole.

unlike denominators bottom numbers of a fraction that are not equal.



unlike numerators top numbers of a fraction that are not equal.

variable A letter or symbol that represents a number. $5 \times b = 10$ b is a variable worth 2.

Venn diagram A drawing with circles or rings to show how sets of objects are related.

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

vertical Perpendicular to the horizon. Vertical lines go up and down. *think basketball player's vertical leap

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

week There are seven days in a week: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday.

weight The measure of how heavy something is.

whole All of an object, a group of objects, shape, or quantity.

whole numbers Whole numbers are 0 and the counting numbers 1, 2, 3, 4, 5, 6, and so on.

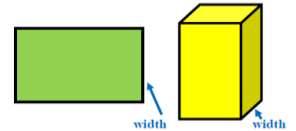
width One dimension of a 2-dimensional or 3-dimensional figure.

word form A way of using words to write a number. The word form of 12,345 is twelve thousand, three hundred forty-five.

yard A customary unit of length. 1 yard = 3 feet or 36 inches A door is *about* 1 yard wide.

year The length of time it takes the Earth to revolve around the sun. 12 months = 1 year 365 days = 1 year 366 days = 1 leap year

Zero Property of Multiplication The product of any number and zero is zero. $8 \times 0 = 0$



Metric

Length and Distance

1 cm=10 mm

1 m=100 cm

1 km=1000m

Capacity

1L=1000mL

1kL=1000L

Weight

1g=1000mg

1kg=1000g

1metric ton=1000kg

Place Value Chart

hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	units	• decimal	tenths	hundredths



Common Customary Measurements			
Length	Weight	Time	Capacity
1 foot = 12 inches	1 pound = 16 ounces	1 minute = 60 seconds	1 cup = 8 fluid ounces
1 yard = 36 inches	1 ton = 2,000 pounds	1 hour = 60 minutes	1 pint = 2 cups
1 yard = 3 feet		1 day = 24 hours	1 quart = 2 pints
1 mile = 5,280 feet		1 week = 7 days	1 quart = 4 cups
1 mile = 1,760 yards		1 year = 12 months	1 gallon = 4 quarts
		1 year = 365 days	1 gallon=8 pints
		1 leap year = 366 days	1 gallon=16 cups