

Glossary

A

absolute value – a number's distance from zero on the number line (The value is always positive.)

acute angle – an angle that measures less than 90°

addend – one of a set of numbers to be added

addition problem –

$$\begin{array}{r} 8 \text{ (addend)} \\ + 4 \text{ (addend)} \\ \hline 12 \text{ (sum)} \end{array}$$

additive identity- 0 is the additive identity, because for any real number a : $a + 0 = a$

additive inverse – the opposite of a number; when a number is added to its additive inverse, the sum is 0. The additive inverse of -7 is: $+7$ because $-7 + +7 = 0$

algebra – a strand of mathematics in which variables are used to express general rules about numbers, number relationships, and operations

algebraic expression – a group of numbers, symbols, and variables that express an operation or a series of operations ($3x$ is an expression for three times some number.)

algorithm – a systematic way for carrying out computations

altitude- a line segment which measures the height of a figure.

angle – a figure formed by two rays having a common endpoint

approximation – an amount or estimate that is nearly exact

area – the measure of the region inside a closed plane figure, measured in square units

arithmetic sequence – a sequence of numbers in which the difference of two consecutive numbers is the same

array – a rectangular arrangement of objects with equal amounts in each column and row

Associative Property – for any real numbers a , b , and c : $(a + b) + c = a + (b + c)$; and for any real numbers a , b , and c : $(ab)c = a(bc)$

attribute – a characteristic of a shape or set of data

axis – one of the reference lines (perpendicular number lines) on a coordinate graph

B

balance (bank) – the amount of money in a bank account

balance (scale) – a tool used for comparing the mass or weight of objects

bar graph – a way of organizing data in horizontal or vertical bars

base (polygon) – the side of a polygon that contains one end of the altitude OR a special side of a two-dimensional object.

base (solid figure) – a special face of a three-dimensional object

benchmark number – a number used in making comparisons or judgments

binomial – the sum or difference of two monomials

bisect – to divide into two equal parts

box-and-whisker plot – a representation of a five-number summary that displays the high and low values, the median, and the quartiles of a set of data, but does not display any other specific values (In the graph, a rectangle (“box”) represents the middle 50% of the data set and the line segments (“whiskers”) at both ends of the rectangle represent the remainder of the data.)

C

calendar – a tool to keep track of the date

capacity – a measurement of the amount that an object can hold

cardinal number – a whole number that answers the question “How many objects in a set?”

Cartesian plane – a two-dimensional coordinate grid

Celsius – a temperature scale where 0° is the freezing point of water, and 100° is the boiling point of water

center (of a circle) – the point inside a circle that is the same distance from every point on the circle

centimeter -- a metric unit of length equal to $1/100$ of a meter

central tendency – a number somewhere in the middle of the data set, or a number with a lot of data clustered around it (Mean, median, and mode are measures of central tendency (averages).)

certain (event) – an event with a probability of one

chart – a sheet of information arranged in lists, pictures, tables, or diagrams

chord – a line segment connecting any two points on a circle

circle – a closed plane figure with every point the same distance from the center

circumference – the perimeter of a circle, the distance around the outside of the circle

clustering – an estimation strategy which groups numbers with relatively the same estimation value (7,225 + 6,734 + 7,123 + 6,642 to 7,000 + 7,000 + 7,000 + 7,000)

coefficient – in algebra, the numerical factor of a term (In $3x$, the coefficient of x is 3.)

coins – metal money

Commutative Property – for any real numbers a and b : $a + b = b + a$; and for any real numbers a and b : $ab = ba$

compass – a tool for drawing circles

compatible numbers – numbers that easily “fit together” in computation and are easy to manipulate mentally

composite figure – a figure made up of several different geometric shapes

composite number – a number that has more than itself and 1 as factors (6 has factors of 1, 2, 3, and 6.)

compound event – an event composed of at least two simple events

compound interest – interest paid on the accumulated amount, including previous interest

compute – to find a numerical result, usually by adding, subtracting, multiplying, or dividing

cone – a three-dimensional figure with a circular base and a vertex (like an ice cream cone)

congruency – having the same size and shape

congruent – figures that are exact “duplicates” of each other; having the same size and shape

coordinate grid/plane – a two-dimensional system in which the coordinates of every point can be expressed as an ordered pair that describes the distance of that point from the x-axis and y-axis (Cartesian plane)

coordinates – a pair of numbers that give the location of a point on a grid/plane or graph

cube – a three-dimensional figure having six congruent, square faces

cube number – a number raised to the third power

cup – a unit of liquid measure; 8 ounces = 1 cup, 2 cups = 1 pint

customary system of measurement – a system of measurement commonly used in the United States (inches, cups, pounds, etc.)

cylinder – a three-dimensional figure with parallel, congruent circular bases

D

data – information, especially numerical, usually organized for analysis

data displays – representations such as frequency tables, histograms, line plots, bar graphs, line graphs, circle graphs, Venn diagrams, charts, and tables

decimal – a name for a fractional number expressed with a decimal point such as .27

decompose (figures) – breaking apart a composite figure into the basic shapes from which it was made

denominator – the number or expression below the line in fraction, the equal parts in the whole

dependent event – an event whose outcome is affected by the outcome of another event

dependent variable – in a function, a variable whose value is determined by the value of the related independent variable

diagonal – a line segment that joins two non-consecutive vertices of a polygon

diameter – a line segment that has its endpoints on a circle (chord) and passes through the center of the circle

difference – the result of subtracting one number from another

digit – one of the ten numerals in our numeration system: 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9

E

ellipse – a closed plane curve generated by a point moving in such a way that the sums of its distances from two fixed points is a constant

empirical results – results based on experiments

equation – a mathematical sentence that states that two expressions are equal; $2 + 3 = 1 + 4$

equilateral – all sides congruent

equivalent – numbers or variable expressions that have the same value (5 is equivalent to $2 + 3$)

estimation strategies – Front-end with Adjustment

\$1.26
4.79 Add whole number part (left most digit.)
.99 $1 + 4 + 0 + 1 + 2 = 8$
1.37 Adjust by looking at decimal parts.
2.58 .26 + .79 Estimate is 1
 .99 Estimate is 1
 .37 + .58 Estimate is 1
 3

Therefore, the estimate is $8 + 3 = 11$.

Rounding

\$4.78
2.93 Round number to nearest whole number.
1.25
+ 3.12 $5 + 3 + 1 + 3$

Therefore, the estimate is 12.

Special Numbers

Examples of special numbers are 1; 10; 100; 1,000; $1/2$; 0.

Estimate by rounding to one of the special numbers.

67×102 Estimate 67×100 or 6,700
 $5,421/9.87$ Estimate $5,421/10$ or 542.1
 $4/7 + 12/13$ Estimate $1 + \frac{1}{2}$ or $1\frac{1}{2}$
 $4,805 \times 11/21$ Estimate $4800 \times \frac{1}{2}$ or 2,400

Clustering

Clustering can be used as an estimation strategy when you have a group of numbers that cluster around a common value.

7225
6734 This set of numbers clusters around 7,000.
6829 A good estimate would be 7000 x 6 or 42,000.
7295
7101
+ 6642

Compatible “nice” Numbers

Compatible (nice) numbers are numbers that can easily “fit together” and are easy to manipulate mentally. Take a global look at all numbers, look for numbers that can be paired for easy computation.

27
49 $27 + 81 = 100$
38 $49 + 56 = 100$
56 $38 + 65 = 100$
81
+ 65 Therefore, the estimate is 300.

Truncation

Truncation is the process of ignoring all digits to the right of a chosen place value. An example of using truncation as an estimation technique is saying gasoline sells for \$1.13 per gallon when the actual price is \$1.139 (\$1.13⁹).

evaluate (an algebraic expression) – substitute the values given for the variables and solve using the order of operations

even number – a number that can be divided by 2 with no remainder (2, 4, 6, 8, 10, ...)

expanded form – the way to write numbers that shows the place values of each digit

explicit rule for a pattern – statement that explains how each term in the number sequence is related to its position in the sequence

exponent – a numeral telling how many times a number is to be multiplied by itself

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

F

face - a plane figure that serves as one side of a solid figure; a flat surface on a solid figure

fact family – a group of addition/subtraction or multiplication/division facts that use the same set of numbers; $3+5=8$, $5+3=8$, $8-3=5$, $8-5=3$

factor (of a number) – a number that divides evenly into a given number

factor (in multiplication) – one of two or more numbers that are multiplied to get an answer (in $3 \times 4 = 12$, both the 3 and the 4 are known as factors of 12)

Fahrenheit – a temperature scale where the freezing point of water is 32° and the boiling point of water is 212°

first quadrant – the upper right fourth of a plane

flip – a mirror-image of a figure on the opposite side of a line; (the size and shape of the figure stay the same); also called reflection

foot – a customary unit of length; 12 inches = 1 foot

formulate – to express as a formula; to work out and state in an orderly, exact way

fraction – a part of a whole; the name for a fractional number written in the form a/b ($4/9$)

numerator – the number or expression above the line in fraction (number of equal parts being described)

$\frac{4}{7}$ (numerator)
7 (denominator)

denominator – the number or expression below the line in fraction (total number of equal parts)

improper fraction – a fraction with a numerator larger than a denominator ($7/3$)

proper fraction – a fraction with a numerator smaller than a denominator ($3/7$)

mixed number – writing a number greater than one with an integer part and a fractional part

lowest terms – a fraction written so that the numerator and denominator have 1 as the only common factor ($4/7$ is in lowest terms but $8/14$ is not since 2 will go into both the numerator and the denominator, i.e., 2 is a common factor.)

reduce or simplify – to write a fraction in lowest terms depending on the context, simplest form does not always mean a mixed number

frame of reference – adjusting estimation based on additional information

frequency – the number of times an event occurs

front-end with adjustment – rounding to the nearest whole number such as ($\$4.96 + \5.88 to $\$5.00 + \6.00)

function – a special set of ordered pairs; one output value for each input value

function table – a table that assigns exactly one output value for each input value

G

gallon – a customary unit of liquid measure; 4 quarts = 1 gallon

geometric sequence – a sequence of terms in which the ratio of two succeeding terms is the same

geometry – a strand of mathematics dealing with figures and their parts

glyph – a simple pictorial shorthand used to display data and details of a subject

gram - a metric unit of mass

graphical displays – (list below and define/also in document)

bar graph

circle graph

line plot

histogram

stem and leaf

greater than – more than, the symbol used is $>$

greatest common factor – the greatest number that is a common factor of two or more numbers (6 is the GCF of 12 and 18 because it is the largest number that goes into both 12 and 18.)

grid – a set of horizontal and vertical lines spaced uniformly used to graph points

gross income – income before any expenses and deductions are subtracted

growing pattern – a sequence in which each element is larger than the previous one.

H

hexagon – a six-sided plane figure

histogram – a graph in which the labels for the bars are numerical intervals

I

impossible event – an event with a probability of zero

improper fraction – a fraction with a numerator larger than a denominator

inch – a customary unit of length; $1/12$ of a foot

independent events – two or more events in which the outcome of the one event does not affect the outcome of the other events

inequality (algebraic) – an algebraic statement that a quantity is greater than or less than another quantity, such as $7t + 5 \leq 40$

inequality (numerical) -- a numerical statement that a quantity is greater than or less than another quantity; $7 + 5 < 40$

integer – any member of the set of whole numbers and their opposites (... -4, -3, -2, -1, 0, 1, 2, 3, 4 ...)

interest – an amount of money paid for the use of money

interquartile range – the difference between the upper (third) and lower (first) quartiles in a set of data

intersecting lines – 2 or more lines that cross each other at one or more points

intersection – the point at which two lines meet

irrational number – a real number that is not rational; A number that can be written as a non-repeating infinite decimal

isosceles (triangle) – at least two congruent sides

isosceles (trapezoid) – non-parallel opposite sides are congruent

K

kilometer – a metric unit of length equal to 1000 meters

kilogram – a metric unit of mass equal to 1000 grams

kite – a quadrilateral in which there are two pairs of consecutive (adjacent) congruent sides

L

least common multiple – the smallest number that is a common multiple of two or more numbers (24 is the LCM of 6 and 8 because it is the smallest number that both 6 and 8 will go into evenly)

length – the distance from one point to another; one dimension of a 2- or 3-dimensional figure

less than – fewer than, the symbol used is <

line – a set of points that form a straight path extending infinitely in both directions

linear equation – an equation that results in a straight line when graphed

linear function – a function of the form $f(x) = ax + b$ where a and b are constants

linear inequality – an inequality whose boundary in the coordinate plane is a line

liter -- a metric unit of volume

M

mass – a measurement that tells how much matter an object has

matrix – a rectangular array of data

mean – one of the measures of central tendency (average); the sum of numbers in a set of data divided by the number of pieces of data

measures of central tendency – measures of central tendency (average) include mean, median, mode

median – one measure of central tendency (average); the middle number in a set of numbers, determined by arranging them in order from lowest to highest and counting to the middle; in the case of an even number data set, add the two middle numbers and divide by two

meter – a metric unit of length

meter stick – a measurement tool used for measuring meters

metric units – a system of measurement based on the decimal system (meters, centimeters, etc.)

mile – a unit of length (5,280 feet = 1 mile)

milliliter -- a metric unit of volume equal to 1/1000 of a liter

milligram – a metric unit of mass equal to 1/1000 of a gram

millimeter – a metric unit of length equal to 1/1000 of a meter

minuend – the name given to the number from which another number is to be subtracted

mixed number – writing a number greater than one with an integer part and a fractional part

mode – a measure of central tendency (average); the number found most frequently in a set of data; there can be no mode, one mode, or more than one mode

model – a representation of a situation that includes process models, place value models, fraction and mixed number models, decimal and money models, two- and three-dimensional models, equations, inequalities, and graphs; models can be mathematical representations of situations, or non-mathematical models of mathematical situations

money – anything that is generally accepted as a medium of exchange to buy goods and services; serves as a standard of value; and has a store of value; gold, silver, shells, tobacco, beads, and paper have all been used as money

monomial – an expression that can be a constant, a variable, or a product of a constant and one or more variables such as 5 (a constant), x (a variable), $-3z$ (a product of a constant and a variable), $6xy$ (a product of a constant and more than one variable), or x^3 (a variable to a power)

multiple – the product of a given whole number and any other whole number

multiplicand – a name given to the number that is being multiplied by another number

multiplication problem –

5 (multiplicand or factor)
<u>x 4 (multiplier or factor)</u>
20 (product)

$$\underline{5 \times 4 = 20}$$

$$\underline{5 : 4 = 20}$$

$$\underline{5(4) = 20}$$

Multiplication Property of One – for any real number a : $a \cdot 1 = 1$; $1 \cdot a = 1$

Multiplication Property of Zero – for any real number a : $a \cdot 0 = 0$; $0 \cdot a = 0$

Multiplicative Identity – 1 is the multiplicative identity, because for any real number a : $a \cdot 1 = a$

Multiplicative Inverse – the reciprocal of a number (When a number is multiplied by its multiplicative inverse, the product is always one.) The multiplicative inverse of 4 is $\frac{1}{4}$, because $4 \cdot \frac{1}{4} = 1$

Multiplicative Property of Equality – for any real numbers a and b: if $a = b$, then $ac = bc$

multiplier – the number by which the multiplicand is being multiplied

N

neighbor – the whole number that is adjacent to another whole number (The neighbors of 6 are 5 and 7.)

net – a pattern to be cut and folded without overlapping to make a solid shape

net income – amount left over after the expenses and deductions have been subtracted from the total

nice numbers – numbers that are easy to think about and work with (100, 500, and 750 are easier to work with than 94, 517, and 762; other multiples of 100 are very “nice” numbers as are multiples of 10.)

nonstandard unit – measurement unit other than customary or metric, such as paperclip, penny, thumbnail

number – a mathematical idea contained in a set; a number can be named in word form (six), standard form (22), or expanded form $[(3 \times 1,000) + (0 \times 100) + (4 \times 10) + (6 \times 1)]$

numeral – the symbolic representation of a number

numerator – the number above the line in fraction; the number of equal parts being described

O

obtuse – an angle that measures more than 90° and less than 180°

octagon – an eight-sided plane figure

odds – the ratio of favorable to unfavorable outcomes, whereas probability is a ratio of favorable outcomes to all possible outcomes. If the odds of rolling an even number on a number cube is 1:1 (1/1 or 1 to 1), then the probability is $\frac{1}{2}$ (.5 or 50%)

odds (against an event) – the ratio of the number of ways an event **cannot** occur to the number of ways that an event can occur

odds (for an event) – the ratio of the number of ways an event **can** occur to the number of ways that an event cannot occur

ordered pair – a pair of numbers that give the coordinates of points on a grid in this order (horizontal coordinate, vertical coordinate)

order of operations – the agreed-upon order of evaluating numerical expressions (First, work inside parentheses, then do powers. Then do multiplications or divisions, from left to right. Then do additions or subtractions, from left to right.)

ordinal number – a number used to name the position in an ordered arrangement

ounce – a measurement of weight; 16 ounces = 1 pound

outcome – a possible result of an experiment

outlier – a piece of numerical data that is much smaller or larger than the rest of the data in a set.

P

parabola – the graph of a quadratic equation of the form $y = ax^2 + bx + c$

parallel lines – lines in the same plane that do not intersect

parallelogram – a four-sided plane figure with parallel opposite sides

pattern – a repeated sequence, either repeating or growing

pattern blocks – a collection of six geometric shapes in color (green triangle, orange square, blue rhombus, tan rhombus, red trapezoid, yellow hexagon), also see Appendix 7 for a pattern block template

pentagon – a five-sided plane figure

percent – a comparison of a number with 100 (43 compared to 100 is 43%.)

perimeter – the measurement of the distance around the outside of a figure

perpendicular – lines in the same plane that intersect at right angles

pi – the constant ratio of the diameter of a circle to its circumference

pictograph – a visual display of data that uses pictures to represent amounts

pint – a customary unit of liquid measure; 2 cups = 1 pint

place value – the value assigned to a digit due to its position in a numeral

plot – to place points on a coordinate grid/plane

point – a location in space represented by a dot

poll – a survey of public opinion concerning a particular subject

polygon – a simple closed plane figure having line segments as sides

polynomial – a sum and/or difference of monomials

pound – a customary measurement of weight; 16 ounces = 1 pound

precision of measurement – the smallest unit of measurement used in measuring

prediction – an educated guess of the number of occurrences in a probability situation; something that is guessed in advance, based on known facts.

prime factorization – an expression showing a whole number as the product of prime factors (24 = 4 x 6 is not a prime factorization since 4 can be broken down into 2 x 2 and 6 can be broken into 2 x 3. The correct prime factorization of 24 is 2 x 2 x 2 x 3.)

prime number – a positive integer that can be divided by only 1 and itself (2, 3, 5, 7, 11...)

probability (of an event) – the likelihood that an event will occur, the ratio of the number of favorable outcomes to the number of equally likely possible outcomes; a number from 0 to 1 that measures the likelihood that an event will occur.

product – the answer in a multiplication problem

profit – income minus expenses, usually stated in dollars. (Extent to which people or organizations are better off at the end of a period than at the beginning of that period.)

proper fraction – a fraction with a numerator smaller than a denominator

property – a characteristic of a number, geometric figure, mathematical operation, equation, or inequality

proportion – a statement of equality between two ratios (For example, 3:6 = 1:2, read: 3 is to 6 as 1 is to 2, can also be written as two equal fractions $\frac{3}{6} = \frac{1}{2}$.)

protractor – a tool for measuring and drawing angles

purposeful sampling – a process used to select a sample; sampling from a deliberately limited population

pyramid – a three-dimensional figure whose base is a polygon and all other faces are triangles that share a common vertex.

Pythagorean Theorem – in a right triangle, the square of the length of the hypotenuse = the sum of the squares of the legs

Q

quadrant – one of the four regions of the coordinate plane formed by the x-axis and y-axis

quadratic equation – a polynomial equation with a variable to the second degree (power of 2) of the form $y=ax^2 + bx + c$ where a cannot be zero

quadratic function – a function whose value is given by a quadratic polynomial

quadrilateral – a four-sided polygon

quart – a customary unit of liquid measure; 2 pints = 1 quart

quarter – a coin with a value of \$.25, one-fourth of something

quotient – the answer in a division problem

R

radius – a line segment having one endpoint in the center of the circle and another on the circle

range – in a collection of numbers, the difference between the maximum value and the minimum value; the length of an interval

ratio – a comparison of two numbers that can be expressed as a fraction ($\frac{3}{4}$), or with a colon (3:4), or in words (3 to 4)

rational number – a number that can be written as the ratio of two integers

ray – a portion of a line extending from one endpoint in one direction indefinitely

real number system – the combined set of rational and irrational numbers

real numbers – rational and irrational numbers

rectangle – a four-sided plane figure with 90° angles and opposite sides are parallel

recursive rule for a pattern– statement or a set of statements that explains how each successive term in the sequence is obtained from the previous term(s)

reflection – a mirror-image of a figure on the opposite side of a line; (the size and shape of the figure stay the same); also called flip

regrouping – the process of renaming one place value to another; The number 1 in 10 represents ten ones

relative magnitude – the size relationship one number has with another number (is it much larger, much smaller, close, or about the same)

remainder – the number left over when things are divided into equal shares

repeating pattern – a pattern made up of repeating a segment, e.g., 235235235235235...

revenue – business' receipts from the sale or rental of goods or services; money from other sources such as dividends and interest

rhombus – a quadrilateral that has four congruent sides

right angle – an angle that measures 90°

right triangle – a triangle that has a 90° angle

Roman numerals – symbols used in the ancient Roman number system

rotation – turning a figure about a point, which serves as the center of rotation; (does not change size or shape); also called turn

rounding – approximating a number to a specific place value so it is easier to work with; round 678 to the nearest ten: 680

ruler – a measuring tool used to determine length

S

sales tax rate – tax specified as a percent of the price of an item

scalar – a single number used with multiplication of a given data such as a vector or a matrix

scale – an arrangement of numbers in some order at uniform intervals

scalene triangle – a triangle having no sides equal

segment – a part of a line defined by two endpoints

similarity – the property of geometric figures having angles of the same size

simple event – an outcome which cannot be broken down further; rolling a number cube and getting 6 is a simple event, rolling two number cubes and getting a sum of six is a compound event

simulation – a model of an experiment that might be impractical to carry out

simultaneous change – two or more changes occurring at the same time

slide – a transformation that slides a figure a given distance in a given direction; (shape and size do not change); also called a translation

slope – the slant of a line given as the ratio of the rate of change in y (rise) with respect to a change in x (run)

sphere – a three-dimensional figure formed by a set of points equidistant from a center point; a round ball

square – a quadrilateral with four right angles and four congruent sides

square number – the number of dots in a square array; a number that is the result of multiplying an integer by itself

standard form – the numeric representation of written or pictorial forms of a number concept, e.g., one hundred thirty-two is represented by 132

standard unit of measure – measurement unit such as customary or metric

stem-and-leaf plot – a method of organizing data from least to greatest using the digits of the greatest place value to group data; shows the greatest, least, and median values in a set of data

subtraction problem –

$$\begin{array}{r} 28 \text{ (minuend)} \\ - 7 \text{ (subtrahend)} \\ \hline 21 \text{ (difference)} \end{array}$$

$$28 - 7 = 21$$

subtrahend – the number or the term to be subtracted

sum – the result of adding two or more numbers

Symmetric Property – for any real numbers a and b, if $a = b$, then $b = a$

Symmetry (line of) – a line that divides a figure into two congruent halves that are mirror images of each other; e.g. diameter of a circle, diagonal of a square

systems of linear equations – two or more related linear equations for which you can seek a common solution; The system may have no common solutions, one common solution, or many common solutions.

systems of linear inequalities - two or more related linear inequalities for which you can seek a common solution; The system may have no common solutions, one common solution, or many common solutions

T

T-chart/T-table – a chart/table of ordered pairs; input-output table; function table

temperature – the measurement of hotness or coldness

term – a number, variable, product or quotient in an expression

tessellate – to arrange an area in a repeating geometric pattern

thermometer – a measurement tool used to measure temperature in Fahrenheit or Celsius

three-dimensional – a figure in space having height, length, and depth

ton (customary) – a customary unit of weight equal to 2,000 pounds

ton (metric) -- a metric unit of mass equal to 1000 kilograms

transformation – a movement or change of a figure in two- or three-dimensional space. Standard transformations include rotations, reflections, and translations (do not change size of a figure) and reduction and enlargement (change size of a figure)

transitive – a law of equality which says if $a = b$, and $b = c$, then $a = c$

translation – a transformation that moves every point on a figure a given distance in a given direction; (shape and size do not change); also called a slide

transversal – a line that intersects two or more other lines

trapezoid – a quadrilateral with exactly one pair of parallel sides

tree diagram – a connected, branching graph used to diagram probabilities or factors

triangle – a polygon with three sides

truncate – to make numbers with many digits easier to read and use by ignoring all digits to the right of a chosen place

turn - rotating a figure about a point, which serves as the center of rotation; (does not change size or shape); also called rotation

two-dimensional – a plane figure having only the dimensions of width and length

U

unit – a precisely fixed quantity used to measure; one's place

unit price – cost for a small unit of measure, such as an ounce or pound, used to compare the costs of a product in different-sized packages

V

variable – a symbol that represents an unstated numerical value in a number sentence; In the equation $6 + a = 10$, "a" is the variable which stands for 4 and $a^2 + b^2 = C^2$ where the variable's values depend on the specific situation

vector – a line segment that has direction and distance

Venn diagram – a drawing with circles that shows relationships among sets of data

vertex – a common point at which two line segments, lines, or rays meet

volume – the measure of space enclosed by a figure

W

weight – the measure of how heavy an object is

whole number – the set of numbers $\{0, 1, 2, 3, \dots\}$

width – the distance from one point to another; one dimension of a 2- or 3-dimensional figure

withdrawal – subtracting money from an account

X

x-axis – the horizontal axis in a coordinate graph

x-intercept -- the value of x at the point where a line or graph of a function intersects the x-axis

Y

y-axis – the vertical axis in a coordinate graph

yard – a customary unit of length; 3 feet = 1 yard

yardstick – a measurement tool used to measure yards, feet, and inches

y-intercept – the value of y at the point where a line or graph of a function intersects the y -axis

Z

zero product property – for any real numbers a and b , if $ab = 0$, then $a = 0$ or $b = 0$

Zero Property – for any real number a , $a \cdot 0 = 0$ and $0 \cdot a = 0$