GLOSSARY

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This glossary is an abbreviated review of key mathematical terms used by the State of Florida in the CLAST test.   For a more complete explanation, discuss the concepts with a mathematics instructor, consult a mathematics dictionary or the text.

acute angle　　　An angle that measures less than 90°

absolute value　　The distance of a number from zero on a real number line; for
example,　　　$| 3 | = 3$ **and** $| -3 | = 3$

acute triangle　　A triangle whose angles each measure less than 90°

adjacent angles　　Two angles that share a common side

alternate　　　When parallel lines are cut by a transversal, a pair of
exterior angles　non-adjacent angles that lie outside the parallel lines but on
opposite sides
of the transversal

alternate　　　When parallel lines are cut by a transversal, a pair of
interior angles　nonadjacent angles whose interiors lie between the parallel lines but on
opposite sides of the transversal

area　　　　The two-dimensional measurement of an enclosed surface; *area is* always
measured in square units

argument　　　A form of reasoning that contains premises and conclusions that are
derived from the premises

arithmetic　　　A sequence established by adding the same nonzero number **d** to
progression　obtain each following number in the sequence; for example,
in 2, 5, 8, 11, . . . the number **d** = 3 is added to the preceding number to
obtain the next number in the sequence

associative　　If *a, b,* and c are real numbers, then $(a + b) + c = a + (b + c)$
property
of addition

associative　　If *a, b,* and *c* are real numbers, then $(ab)c = a(bc)$
property
of multiplication

circumference　　The distance around a circle; *circumference is* always measured in linear
units

combinations	A method used to count the total number of smaller groups, subsets, collections, etc. that can be chosen from a larger collection of distinct objects without regard to order
commutative property of addition	If a and b are real numbers, then $a + b = b + a$
commutative property of multiplication	If a and b are real numbers, then $a(b) = b(a)$
complementary angles	A pair of angles the sum of whose measures is 90°
compound statement	A statement that is formed by combining two or more simple statements with a connective *(and, or, if . . . then)*
conclusion	The statement following the word *then* in an implication
congruent	Two angles that have the same angle measure
conjunction	A compound statement that can be written as two simple statements joined by the word *and* or an equivalent word: a *conjunction* is true only if both simple statements are true
contrapositive	The statement resulting when we interchange and negate the hypothesis and conclusion of a given implication; the contrapositive of *if p, then* q is *if not* q*, then not p*
converse	The statement resulting when we interchange the hypothesis and conclusion of a given implication; for the implication *if p, then* q the converse is *if* q*, then p*
coordinate plane	A plane utilizing a system of graphing ordered pairs of numbers in relation to two axes (horizontal and vertical), which intersect at right angles at their zero point
cube	The fundamental unit of volume; a rectangular prism with all square sides
denominator	In the fraction $\frac{a}{b}$, b *is* the denominator

diameter	A line segment that joins two points on the rim of a circle passing through the center
disjunction	A compound statement that can be written as two simple statements joined by the word *or,* or an equivalent word: a *disjunction is* true if at least one of the simple statements is true
distributive property of multiplication over addition	if *a, b,* and c are whole numbers, then $a(b + c) = ab + ac$
dividend	A number that is divided by another number; for example, in the problem $450 \div 25 = 18$, the *dividend is* **450**
divisor	A number by which another number is divided; for example, in the problem $450 \div 25 = 18$, the *divisor is* **25**
equation	A statement that sets two expressions equal
equilateral triangle	A triangle having all sides congruent (same measures)
equivalent statements	Statements that have the same logical meaning
experiment	Any process that allows researchers to make observations or obtain measurements
exponent	A number that shows how many times a base number occurs as a factor
factor; factoring	When two or more numbers are multiplied, each of the numbers is a factor of the product; factoring involves finding the factors of an expression over a specified factor set
fraction	An expression in the form (a/b) where *b is* not equal to 0
frequency table	A table that lists a set of statistical data and how many times each item occurred
function	A relationship that defines how one set of numbers relates to a second set of numbers; a function consists of two sets, the domain and the range

geometric progression	A sequence of numbers established by multiplying by the same nonzero number **c** to determine the next number in the sequence; for example, in 2, 6, 18, 54, . . . each preceding number is multiplied by the number **c** = 3 to obtain the next number
harmonic	A sequence of numbers having 1 as a numerator and **progression** denominators that form an arithmetic progression, for example, $\frac{1}{2}, \frac{1}{5}, \frac{1}{8}$, ... is a harmonic progression
hypotenuse	The side opposite the right angle of a right triangle; it is also the longest side of a right triangle
hypothesis	The statement following the word *if* in an implication
identity property for addition	If **a** is any real number, then $a + 0 = 0 + a = a$
identity property for multiplication	If **a** is any real number, then $a(1) = 1(a) = a$
implication	A statement demonstrating the relationship between two propositions using he connective words *if* and *then*
improper fraction	A fraction with a numerator *larger than* or *equal to* its denominator
independent events	Two or more events in the same experiment in which the occurrence of one event has no effect on the probability of the occurrence of the other event
inequality	A statement in which two quantities are not equal
integer	Any whole number, negative number, or zero in the set **{. . ., -3, -2, -1, 0, 1, 2, 3,. . .}**
inverse	To obtain the inverse of a given implication, negate both the hypothesis and the conclusion; for the implication *if p, then* **q** the inverse is *if not p, then not q*
inverse property of addition	If a is a real number, then *(-a)* is called its additive inverse; *a + (-a) = 0*

inverse property of multiplication	If $\frac{a}{b}$ is a number, where a is not equal to 0 and b is not equal to 0, then $\frac{b}{a}$ is its multiplicative inverse: $\frac{a}{b} \times \frac{b}{a} = 1$
irrational number	A number that, when expressed as a decimal, neither terminates nor repeats; a real number that cannot be expressed in the form $\frac{a}{b}$ where a and b are integers and b is not equal to zero
isosceles triangle	A triangle having two congruent sides with the angles opposite these sides of equal measure
least common denominator (LCD)	The least common multiple of two or more denominators
legs	The shorter sides of a right triangle that are not the hypotenuse; also the congruent sides of an isosceles triangle
length	A one-dimensional measure expressed in linear units, such as inches, feet, yards, miles, centimeters, meters, etc.
line	A geometric element determined by two distinct points that extends indefinitely in both directions
mean	The number determined by dividing the sum of a group of numbers by the total items in the group; also known as the arithmetic average
median	The middle number in a group of numbers arranged in order; if there is no middle number (when there is an even number of items), then the median is found by computing the mean of the two middle numbers
mixed number	A number denoted by the sum of an integer and a fraction; for example, $3\frac{4}{5}$
mode	The number that appears most often in a group of numbers
multiple	the product of a given integer and another integer; for example, multiples of 5 are 5, 10, I5, 20, 25, . . .
mutually exclusive events	Events in the same experiment that cannot occur at the same time

negation	To give the opposite truth value of a statement
numerator	In the fraction $\frac{a}{b}$, *a is* the numerator
obtuse angle	An angle that measures more than 90° but less than 180°
obtuse triangle	A triangle that has one angle that measures more than 90°
parallelogram	A four-sided polygon in which both pairs of opposite sides are parallel
percent	A notation for a ratio with the denominator 100; for example, $\frac{3}{100} = 3\%$
perimeter	The distance around an object; perimeter is always measured in linear units
permutation	A special case of the fundamental counting principle that counts the total number of ways distinct objects can be arranged when the order of the objects is important
plane	A flat surface that extends indefinitely in all directions
point	A geometric element that has no length, width, or height; a point is symbolized by a dot
polygon	A closed figure composed of line segments
population	The entire group of individuals, items, observations, or set of scores from which a description or inference is made
premise	An assumption or observation
probability	A number between 0 and 1 (inclusive) that tells how likely it is that a certain event will occur: if an event is impossible, the *probability is 0;* if an event is certain, the *probability is 1*
product	The number resulting from a multiplication
proportion	An equation made up of two equal ratios

Pythagorean theorem	In a right triangle, the square of the hypotenuse **c** is equal to the sum of the squares of the two legs **a** and **b**: $a^2 + b^2 = c^2$, where c is the length of the hypotenuse
quadratic equation	An equation of the form $ax^2 + bx + c = 0$ where *a, b,* and *c* are real numbers and *a is* not equal to zero
quadratic formula	The formula used to solve the quadratic equations $ax^2 + bx + c = 0$ $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ where *a, b,* and *c* are real numbers and *a is* not equal to zero
quadrilateral	A four-sided polygon
quantifier	A word used to tell *how many* in a statement, for example, *all, some, some-not*, and *no*
quotient	The result of dividing one number into another number; for example, in *450 ÷ 9 = 50,* the quotient is **50**
radical	A number in the form $\sqrt{a}$, consisting of a radical sign ($\sqrt{}$) and a radicand *(a),* for example, $\sqrt{5}$
radius	A line segment that joins the center of a circle to a point on the circle
ratio	A comparison of one quantity with another like quantity
rational number	A real number that can be expressed as the ratio of two integers; for example, in the form $\dfrac{a}{b}$, where b is not equal to zero
real number	Any number paired with a point on the number line; any number that is a positive number or a negative number or zero; this includes numbers such as $-\dfrac{1}{2}$, π, $\sqrt{2}$, as well as integers
reciprocals	Two numbers whose product is 1; for example, $\dfrac{4}{5}$ and $\dfrac{5}{4}$ are reciprocals because $\dfrac{4}{5} \times \dfrac{5}{4} = 1$
rectangle	A parallelogram with four right angles

reduce	To reduce a fraction, divide the numerator and the denominator by a common factor greater than 1; a fraction is in its lowest term when it cannot be reduced
rhombus	A parallelogram with four congruent sides
right angle	An angle that measures exactly 90°
right triangle	A triangle having one right angle
sample	A subgroup of a population
scalene triangle	A triangle whose sides are all different lengths
scientific notation	A number that is written as a product of a decimal number (greater than or equal to 1 and less than 10) and a power of 10
set	A collection of objects
similar triangles	Two or more triangles with corresponding angles that are congruent and corresponding sides that are in proportion
simple statement	A single statement that is either true or false
solution	A number that makes an equation or inequality involving one variable true when substituted for that variable
square	A rectangle with four congruent sides or a rhombus with four right angles
square root	One of two equal factors of a number; the number a is a square root of the number b if $a^2 = b$
straight angle	An angle that measures exactly 180°
supplementary angles	A pair of angles the sum of whose measures is 180°
transversal	A line that intersects any two other lines in two distinct points
trapezoid	A four-sided polygon that has one pair of parallel sides
triangle	A three-sided polygon
universal set	A set that contains all possible elements under consideration

variable   A letter or symbol used to represent one or more numbers in a mathematical expression

vertical angles   Either of two angles lying on opposite sides of two intersecting lines

volume   The amount of space enclosed by a solid figure; volume is always measured in cubic units

whole number   Any number in the set **{ 0, 1, 2, 3, . . .)**