

FCAT MATHEMATICS GLOSSARY GRADES 3–5

The terms defined in this glossary pertain to the *Sunshine State Standards* in mathematics for Grades 3 through 5 and the content assessed on the FCAT in mathematics. Italicized words or phrases within a definition are defined separately in this glossary.

Acute angle	an <i>angle</i> that measures less than 90° and greater than 0° .
Addend	any number being added.
Algebraic equation (inequality)	a mathematical sentence containing <i>variables</i> in which two <i>expressions</i> are connected by an equality (inequality) symbol. See also <i>equation</i> and <i>inequality</i> .
Algebraic expression	an <i>expression</i> containing numbers and <i>variables</i> (e.g., $7x$), and operations that involve numbers and <i>variables</i> (e.g., $2a + 4$). Algebraic expressions do not contain equality or <i>inequality</i> symbols.
Algebraic order of operations	the order of performing computations is parentheses first, multiplication and/or division (as read from left to right), then addition and/or subtraction (as read from left to right). For example: $8 + (18 \div 2) - 3 \times 2$ $8 + 9 - 3 \times 2$ $8 + 9 - 6$ $17 - 6$ 11
Algebraic rule	a mathematical <i>expression</i> that contains <i>variables</i> and describes a pattern or relationship.
Angle	two <i>rays</i> extending from a common end <i>point</i> called the <i>vertex</i> . <i>Angles</i> are measured in degrees.
Area	the measure, in square units, of the inside region of a closed two-dimensional figure (e.g., a rectangle with sides of 4 units by 6 units has an area of 24 square units).
Axes (of a graph)	the horizontal and vertical <i>number lines</i> used in a <i>coordinate plane</i> system.
Axis	the singular form of <i>axes</i> .
Bar graph	a graph that uses either vertical or horizontal bars to display data.

Base (geometric)	the line or plane of a geometric figure, from which a <i>height</i> can be constructed.
Break	a zigzag on the <i>x</i> - or <i>y</i> -axis in a line or <i>bar graph</i> indicating that the data being displayed do not include all of the values that exist on the <i>number line</i> used. Also called a <i>squiggle</i> .
Capacity	the amount of space that can be filled in a container. Both capacity and <i>volume</i> are used to measure three-dimensional spaces; however, capacity usually refers to fluids, whereas <i>volume</i> usually refers to solids.
Chart	a <i>data display</i> that presents information in columns and rows.
Circle graph	a <i>data display</i> that divides a circle into regions representing a portion of the total set of data. The circle represents the whole set of data.
Closed figure	a two-dimensional figure that divides the <i>plane</i> in which the figure lies into two parts—the part inside the figure and the part outside the figure (e.g., circles, squares, rectangles).
Composite number	a whole number that has more than two <i>factors</i> .
Congruent	figures or objects that are the same shape and size.
Coordinate grid or plane	a two-dimensional network of horizontal and vertical lines that are <i>parallel</i> and evenly-spaced; especially designed for locating <i>points</i> , displaying data, or drawing maps.
Coordinates	numbers that correspond to points on a <i>coordinate plane</i> in the form (x, y) , or a number that corresponds to a <i>point</i> on a <i>number line</i> .
Customary units	the units of measure developed and used in the United States. Customary units for <i>length</i> are inches, feet, yards, and miles. Customary units for <i>weight</i> are ounces, pounds, and tons. Customary units for <i>volume</i> are cubic inches, cubic feet, and cubic yards. Customary units for <i>capacity</i> are fluid ounces, cups, pints, quarts, and gallons.
Data displays/graphs	different ways of displaying data in <i>charts</i> , <i>tables</i> , or graphs, including <i>pictographs</i> , <i>circle graphs</i> , single-, or double- <i>bar</i> and <i>line graphs</i> , histograms, and <i>stem-and-leaf plots</i> .
Decimal number	any number written with a decimal point in the number. A decimal number falls between two <i>whole numbers</i> (e.g., 1.5 falls between 1 and 2). Decimal numbers smaller than 1 are sometimes called decimal fractions (e.g., five-tenths is written 0.5).

Diameter	a <i>line segment</i> from any <i>point</i> on the circle passing through the center to another <i>point</i> on the circle.
Difference	a number that is the result of subtracting two numbers.
Direct measure	obtaining the measure of an object by using measuring devices, either standard devices of the <i>customary</i> or <i>metric systems</i> , or nonstandard devices such as a paper clip or pencil.
Divisible	a number capable of being divided into equal parts without a remainder.
Divisor	the number by which another number is divided.
Equation	a mathematical sentence in which two <i>expressions</i> are connected by an equality symbol. See also <i>algebraic equation (inequality)</i> .
Equivalent forms of a number	the same number expressed in different forms (e.g., $\frac{3}{4}$, 0.75, 75%).
Estimation	the use of rounding and/or other strategies to determine a reasonably accurate approximation, without calculating an exact answer (e.g., clustering, front-end estimating, grouping, etc.).
Evaluate an algebraic expression	substitute numbers for the <i>variables</i> and follow the <i>algebraic order of operations</i> to find the numerical value of the <i>expression</i> .
Expression	a collection of numbers, symbols, and/or operation signs that stands for a number.
Extraneous information	information that is not necessary to solving the problem.
Face	one of the <i>plane</i> surfaces bounding a three-dimensional figure; a side.
Factor	a number or <i>expression</i> that divides evenly into another number (e.g., 1, 2, 4, 5, 10, and 20 are factors of 20).
Flip	See <i>reflection</i> .
Fraction	any part of a whole is called a fraction (e.g., one-half written in fractional form is $\frac{1}{2}$).
Function	a relationship in which each element of one set has one assigned element in the other set.
Grid	See <i>coordinate grid</i> .

Height	a <i>line segment</i> extending from the <i>vertex</i> or apex of a figure to its <i>base</i> and forming a <i>right angle</i> with the <i>base</i> or <i>plane</i> that contains the <i>base</i> .
Indirect measure	the measurement of an object through the known measure of another object.
Inequality	a sentence that states one <i>expression</i> is greater than, greater than or equal to, less than, less than or equal to, or not equal to, another <i>expression</i> (e.g., $a \neq 5$ or $x < 7$). See also <i>algebraic inequality</i> .
Intersection	the <i>point</i> at which two <i>lines</i> meet.
Inverse operation	an action that undoes a previously applied action. For example, subtraction is the inverse operation of addition.
Labels (for a graph)	the titles given to a graph, the <i>axes</i> of a graph, or to the <i>scales</i> on the <i>axes</i> of a graph.
Length	a one-dimensional measure that is the measurable property of <i>line segments</i> .
Likelihood	the chance that something is likely to happen. See <i>probability</i> .
Line	a collection of an infinite number of <i>points</i> in a straight pathway with unlimited <i>length</i> and having no width.
Line graph	a graph that displays data using connected <i>line segments</i> .
Line segment	a portion of a <i>line</i> that consists of a defined beginning and endpoint and all the <i>points</i> in between.
Mass	the amount of matter in an object.
Mean	the arithmetic average of a set of numbers. It is also a measure of central tendency.
Median	the middle <i>point</i> of a set of rank-ordered numbers where half of the numbers are above the median and half are below it. It is also a measure of central tendency.
Metric units	the units of measure developed in Europe and used in most of the world. Like the decimal system, the metric system uses the base 10. Metric units for <i>length</i> are millimeters, centimeters, meters, and kilometers.

Metric units for *mass* are milligrams, grams, and kilograms.
Metric units for *volume* are cubic millimeters, cubic centimeters, and cubic meters.
Metric units for *capacity* are milliliters, centiliters, liters, and kiloliters.

Mode	the score or data <i>point</i> found most often in a set of numbers. There may be no mode, one mode, or more than one mode in a set of numbers. It is also a measure of central tendency.
Multiples	the numbers that result from multiplying a given <i>whole number</i> by the set of <i>whole numbers</i> (e.g., the multiples of 15 are 0, 15, 30, 45, 60, 75, etc.).
Natural numbers (counting numbers)	the numbers in the set $\{1, 2, 3, 4, 5 \dots\}$.
Nonstandard units of measure	objects such as blocks, paper clips, crayons, or pencils that can be used to obtain a measure.
Number line	a <i>line</i> on which numbers can be written or visualized.
Obtuse angle	an <i>angle</i> that measures more than 90° but less than 180° .
Operation	any mathematical process, such as addition, subtraction, multiplication, division, raising to a power, or finding the <i>square root</i> .
Ordered pair	the location of a single <i>point</i> on a rectangular coordinate system where the digits represent the position relative to the <i>x-axis</i> and <i>y-axis</i> [e.g., (x, y) or $(3, 4)$].
Organized data	data arranged in a display that is meaningful and that assists in the interpretation of the data. See <i>data displays</i> .
Parallel lines	two <i>lines</i> in the same <i>plane</i> that are a constant distance apart. Parallel lines have equal slopes.
Pattern (relationship)	a predictable or prescribed sequence of numbers, objects, etc. Patterns and relationships may be described or presented using manipulatives, <i>tables</i> , graphics (pictures or drawings), or <i>algebraic rules (functions)</i> .
Percent	a special-case <i>ratio</i> which compares numbers to 100 (the second term). For example, 25% means the ratio of 25 to 100.
Perimeter	the distance around a <i>polygon</i> .
Perpendicular	two <i>lines</i> , two <i>line segments</i> , or two <i>planes</i> that cross to form a <i>right angle</i> .

Pictograph	a <i>data display</i> constructed with pictures or symbols to visualize any <i>ratios</i> between two measures or counts.
Place value	the position of a single digit in a number.
Plane	an undefined, two-dimensional geometric surface that has no depth and no boundaries specified. A plane is determined by defining at least three distinct <i>points</i> or at least two distinct <i>lines</i> existing on the plane.
Plane figure	a two-dimensional figure that lies entirely within a single <i>plane</i> .
Point	a specific location in space that has no discernible <i>length</i> or width.
Polygon	a closed- <i>plane</i> figure, having at least three sides that are <i>line segments</i> and are connected at their end-points.
Prime number	any <i>whole number</i> with only two <i>whole number factors</i> , 1 and itself (e.g., 2, 3, 5, 7, 11, etc.).
Probability	a measure of the <i>likelihood</i> that a given event will occur; expressed as a <i>ratio</i> of one event occurring (favorable outcomes) to the number of equally likely possible outcomes.
Product	the result of multiplying numbers together.
Quotient	the result of dividing two numbers.
Radius	a <i>line segment</i> extending from the center of a circle or sphere to a <i>point</i> on the circle or sphere. Plural: radii.
Randomly (chosen)	an equal chance of being chosen.
Range	the lowest value (L) in a set of numbers through the highest value (H) in the set. When the width of the range is expressed as a single number, the range is calculated as the difference between the highest and lowest values ($H - L$). Other presentations show the range calculated as $(H - L + 1)$. Depending on the context, the result of either calculation would be considered correct.
Ratio	the comparison of two quantities (e.g., the ratio of 3 to 4 is 3:4 or $\frac{3}{4}$).
Ray	a portion of a <i>line</i> that begins at an endpoint and goes on indefinitely in one direction.
Reflection	a <i>transformation</i> that produces the mirror image of a geometric figure over a <i>line</i> of reflection. Also called a <i>flip</i> .

Regular polygon	a <i>polygon</i> that is both equilateral (all <i>sides congruent</i>) and equiangular (all <i>angles congruent</i>).
Relative size	the size of one number in comparison to the size of another number or numbers.
Right angle	an <i>angle</i> that measures exactly 90° .
Right prism or rectangular solid	a three-dimensional figure (polyhedron) with <i>congruent</i> , polygonal <i>bases</i> and lateral <i>faces</i> that are all parallelograms.
Rotation	a <i>transformation</i> of a figure by turning it about a center <i>point</i> or <i>axis</i> . The amount of rotation is usually expressed in the number of degrees (e.g., a 90° rotation). Also called a <i>turn</i> .
Rule	a mathematical <i>expression</i> that describes a <i>pattern</i> (relationship), or a written description of the <i>pattern</i> (relationship).
Scale	the numeric values, set at fixed intervals, assigned to the <i>axes</i> of a graph.
Scale model	a model or drawing based on a <i>ratio</i> of the dimensions for the model and the actual object it represents.
Side	the edge of a <i>polygon</i> (e.g., a triangle has three <i>sides</i>) or one of the <i>rays</i> that make up an <i>angle</i> .
Similar figures	figures that are the same shape, have corresponding, <i>congruent angles</i> , and have corresponding <i>sides</i> that are proportional in <i>length</i> .
Similarity	a term describing figures that are the same shape but are not necessarily the same size or in the same position.
Slide	See <i>translation</i> .
Squiggle	See <i>break</i> .
Standard units of measure	accepted measuring devices and units of the <i>customary</i> or <i>metric</i> system.
Stem-and-leaf plot	a graph that organizes data by place value to compare data frequencies.
Straight angle	an <i>angle</i> that measures exactly 180° .
Sum	the result of adding numbers together.

Symmetry	a term describing the result of a <i>line</i> drawn through the center of a figure such that the two halves of the figure are <i>reflections</i> of each other across the <i>line</i> .
Table	a <i>data display</i> that organizes information about a topic into categories. See also <i>chart</i> .
Transformation	an <i>operation</i> on a geometric figure by which another image is created. Common transformations include <i>reflections (flips)</i> , <i>translations (slides)</i> , and <i>rotations (turns)</i> and <i>dilations</i> .
Translation	a <i>transformation</i> in which every <i>point</i> in a figure is moved in the same direction and by the same distance. See also <i>slide</i> .
Tree diagram	a diagram in which all the possible outcomes of a given event are displayed.
Trend line	a <i>line</i> on a graph indicating a statistical trend.
Turn	see <i>rotation</i> .
Unorganized data	data that are presented in a <i>random</i> manner.
Variable	any symbol, usually a letter, that could represent a number.
Vertex	the common endpoint from which two <i>rays</i> begin (i.e., the vertex of an <i>angle</i>) or the <i>point</i> where two <i>lines intersect</i> ; the <i>point</i> on a triangle or pyramid opposite to and farthest from the <i>base</i> .
Vertices	the plural form of <i>vertex</i> .
Volume	the amount of space occupied in three dimensions and expressed in cubic units. Both <i>capacity</i> and <i>volume</i> are used to measure empty spaces; however, <i>capacity</i> usually refers to fluids, whereas <i>volume</i> usually refers to solids.
Weight	measures that represent the force of gravity on an object.
Whole numbers	the numbers in the set $\{0, 1, 2, 3, 4 \dots\}$.
x-axis	the horizontal <i>number line</i> on a rectangular coordinate system.
y-axis	the vertical <i>number line</i> on a rectangular coordinate system.