



**Mid-Ohio Educational Service Center
Mathematics Course of Study
Fifth Grade – Vocabulary Definitions**

(Ohio Department of Education. 2001. K-12 Mathematics Academic Content Standards)

associative property	The result of an operation on real numbers will be unchanged due to grouping; e.g., for addition, $(a + b) + c = a + (b + c)$ or for multiplication, $a(bc) = (ab)c$.
categorical data	Data that can be classified by type; e.g., color, types of dogs. These types of data are typically represented using bar chart, pie charts or pictographs.
commutative property	The order of the objects in an operation can be changed without affecting the results; e.g., for addition, $a + b = b + a$ or for multiplication, $ab = ba$.

congruent	Having exactly the same size and shape.
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continuous data	Data that can be assigned an infinite number of values between whole numbers, the assigned values are approximated; e.g., the size of the apples on an apple tree is continuous data. See <i>discrete data</i> for a counterexample.
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coordinate plane	A plane determined by the intersection of two <i>perpendicular</i> number lines in which any point can be located.
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discrete data	Data that can be counted; e.g., the number of people in a town is discrete (there is no such thing as a fractional person). <i>See continuous data for a counterexample.</i>
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distributive property	The product of a number and the sum (or difference) of two numbers is equal to the sum (or difference) of the two products; e.g., $7(30 + 5) = (7 \cdot 30) + (7 \cdot 5)$ or $a(b - c) = ab - ac$.
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equation	A statement that shows two mathematical expressions that are equal to each other.
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equivalent	Two items that have the same value.
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experimental probability	<p>The probability based on a series of trials. The experimental probability, P, can be found using the following equation:</p> $P(\text{event}) = \frac{\text{\# of trials w/favorable outcomes}}{\text{number of trials in experiment}}$
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experimental results	The outcome as a result of a probability experiment or test. These outcomes are sometimes called actual results.
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expressions	Any combination of <i>variables</i> , numbers, and symbols (excluding the equality and inequality symbols).
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frequency table	A table that shows how often each item, number, or range of numbers occurs in a set of data.
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function	A mathematical relationship between two <i>variables</i> , an independent <i>variable</i> and a dependent <i>variable</i> , where every value of the independent <i>variable</i> corresponds to exactly one value of the dependent value.
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identity property	Of addition: Adding zero to a number gives a sum identical to the given number. Of multiplication: Multiplying a number by 1 gives a product identical to the given number.
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inequality	A mathematical sentence that includes one of the inequality symbols, $<$, $>$, \leq , \geq , or \neq to compare unequal expressions.
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inverse property	<p>The result of two real numbers that combine will give the identity elements of zero or one. When a number is added to its additive inverse, the sum is always zero; e.g., $8 + - 8 = 0$. When a number is multiplied by its multiplicative inverse, the product is always one;</p> <p>e.g., $\frac{2}{3} \cdot \frac{3}{2} = 1$.</p>
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mean	<p>The sum of a set of numbers divided by the number of elements in the set.</p>
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median	<p>The middle number or item in a set of numbers or objects arranged from least to greatest, or the <i>mean</i> of the two middle numbers when the set has two middle numbers.</p>
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mode	The number or object that appears most frequently in a set of numbers or objects.
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parallel lines	Lines in the same plane that do not cross, the distance between the lines is constant.
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perpendicular lines	Lines that intersect at one point forming 90° .
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probability	The chance of an event occurring. The probability of an event is equal to the number of favorable outcomes divided by the number of possible outcomes.
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quantitative data	Data that are numerical. The data can be <i>discrete</i> or <i>continuous</i> .
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rotation	A rotation is a <i>transformation</i> about a fixed point such that every point in the object turns through the same angle relative to that fixed point.
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theoretical probability	Identifying, using mathematical expectations, the number of ways an event could happen compared to all the events that could happen.
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theoretical results	The expected results given the <i>theoretical probability</i> of an event.
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variable	A changing quantity, usually a letter in an algebraic equation or expression, that might have one of a range of possible values.
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