Associative Property of Addition

Changing the grouping of addends does not change their sum. It is also called the *Grouping Property of Addition.*

Example: For all numbers *a, b,* and *c,*
$$a + (b + c) = (a + b) + c.$$

base

A number used as a repeated factor in a product.

Example: In 8^{3}, 8 is the *base.*

Commutative Property of Addition

Changing the order of addends does not change their sum. It is also called the *Order Property of Addition.*

Example: For all numbers *a* and *b, a + b = b + a.*

decimal

A number with one or more digits to the right of a decimal point.

Examples: 17.03, 0.8, and 225.807 are *decimals*.

decimal point

A symbol used to separate the ones and tenths places in a decimal.

Example: 4.2365

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decimal point

difference

The result of subtraction.

Example: $486 - 38 = 448$

$\uparrow$

difference

equation

A mathematical sentence that shows
that two expressions are the same value.

evaluate

To substitute the values given for the variables in an expression and perform the operations to find the value of the expression.

expanded form

A way of writing a number as the sum of the values of its digits.

Example: 4,852 in *expanded form* is
$$(4 \times 1,000) + (8 \times 100) + (5 \times 10) + (2 \times 1)$$

exponent

The number in a power that tells the
number of times the base is used as a factor.

Example: In 5^3, 3 is the *exponent.*

expression

A number, variable, or any combination
of numbers, variables, and operation signs.

Examples: 19, *x*, *a*–10, $5n^3$ are *expressions.*

Identity Property of Addition

The property which states that the
sum of any number and 0 is that number.

Example: x + 0 = 0 + *x* = *x*

period

In a number, each group of three digits separated by a comma.

Example: In 345,507,147 the thousands *period* is 507.

place value

The value of a digit determined by its place in a number.

Example: The *place value* of 5 in the number
305,784 is 5 thousands or 5 ×1,000.

power of 10

A power with a base of 10.

Examples: 10^1, 10^2, 10^3,… are *powers of 10.*

sequence

An ordered set of numbers.

Example: 1, 1, 2, 3, 5, 8, 13, … is a *sequence.*

standard form

A way of writing a number using only digits.

Example: 254 is the *standard form* of 200 + 50 + 4.

sum

The result in addition.

Example: 3 + 7 = 10

sum

variable

A letter that represents a number in an algebraic expression.

Example: 6 + (r ÷ 2)

↑

variable