### algorithm

A set of rules for performing a procedure. Mathematicians invent algorithms that are useful in many kinds of situations. Some examples of algorithms are the rules for long division or the rules for adding two fractions.

### **Commutative Property**

The order of the addition or multiplication of two numbers does not change the result. For two numbers a and b, a+b=b+a and  $a \cdot b=b \cdot a$ . For example, 37+8=8+37 and  $37\cdot8=8\cdot37$ .

#### absolute value

The absolute value of a number is its distance from 0 on a number line. Numbers that are the same distance from 0 have the same absolute value. For example, –3 and 3 both have an absolute value of 3.

### additive identity

Zero is the additive identity for rational numbers. Adding zero to any rational number results in a sum identical to the original rational number. For any rational number a, 0+a=a. For example, 0+4.375=4.375.

#### additive inverses

Two numbers, a and b, that satisfy the equation a+b=0. For example, 3 and -3 are additive inverses, and 12 and -12 are additive inverses.

No new vocabulary terms.

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