

Master Glossary

A

algebra

represents the part of mathematics that helps solve problems using **variables**, **constants**, and **expressions** (Lesson 58)

and

the word we say when we see a decimal point in a number (Lesson 12)

Example: *10.9 is read as ten **and** 9 tenths*
*\$9.99 is read as nine dollars **and** ninety-nine cents*

APR

annual percentage rate (Lesson 40)

area

the space inside a closed shape

B

bar graphs

graphs that use **bars** to show information (Lesson 56)

base

in most shapes, it is the flat area that the figure rests on (Lesson 53)

The top of the figure is also called a base when it is parallel to the bottom.

borrow (exchange)

a form of regrouping used in subtraction where a digit is transferred from one column of digits to another (lower place value) column (Lesson 17, 18)

Example:

$$\begin{array}{r} 627 \\ - 219 \\ \hline \end{array}$$
 Although **627** is larger than **219**, you may have noticed that in the **one's place** the **'9'** is larger than **'7'**. Therefore, you need to borrow.

1 17

$$\begin{array}{r} 627 \\ - 219 \\ \hline 408 \end{array}$$

1) Borrow **1** from the **2**, and make it **1**.
2) Then add **10** to **7**, making it **17**.
3) Now you may subtract.

C

carry

a form of regrouping used in addition where a digit is transferred from one column of digits to another (higher place value) column (Lesson 9)

Example: $23 + 145 + 312 =$

$$\begin{array}{r} 23 \\ 145 \\ + 312 \\ \hline 480 \end{array}$$

centimeter (cm)

unit of measure: one hundredth of a meter (1/100) (Lesson 52)

circle graphs

graphs that show information in the shape of a **circle**; they are sometimes called pie charts or pie graphs (Lesson 56)

constant

the number in an algebraic expression (Lesson 58)

Example: $x \div 4 = 8$ *4 is the constant*

coordinates

a set of numbers that helps to locate a point on a grid (Lesson 57)

The coordinates always come in pairs and the number on the x-axis comes first, while the number on the y-axis comes second (x,y). They are also written in parenthesis.

Example: (1,2)

D

data

another word for **information** (Lesson 56)

decimal place

the position of a digit to the right of a decimal point (Lesson 3)

Example: *In 2.5 the 5 is in the tenths place*

decimal point

a dot used to separate a whole number from the fractional part of the number called tenths (Lesson 46)

Example: *9.9 (nine and nine tenths)*

decrease

to get smaller (Lesson 4, 5)

denominator

the bottom number of a fraction that tells the number of equal parts on the whole (Lesson 28, 33)

Example: *In the fraction $\frac{2}{3}$, 3 is the denominator*

digit

one of the ten symbols, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, that make up all numbers (Lesson 1)

dividend

a number to be divided by another number (Lesson 27)

Example: $63 \div 7 = 9$ **63** is the dividend

divisor

the number by which a dividend is divided (Lesson 27)

Example: $63 \div 7 = 9$ **7** is the divisor

dollar sign

the symbol used to express money (\$) (Lesson 24)

E

equation

a math statement with **variables** and/or **constants**, and an **equal sign (=)** (Lesson 60)

Example: $2 + n = 6$ is an **equation** where n is a variable and 2 is a constant

equilateral triangle

has all three (3) sides that are equal (Lesson 50)

equivalent decimals

decimals that have the same value (Lesson 6)

Example: $0.7 = 0.70$

estimate

to find a number that is close to the exact answer (Lesson 14)

estimation

a math skill where you find an approximate answer

Example:

If a TV costs \$379, we could say it will cost about \$400

expression

a mathematical phrase that contains a **variable** and a **constant** (Lesson 58)

Example: $x + 4$ is an **expression**

F

fraction

numbers that represent a part of a whole number; the line (—) or slash (/) means divided by (Lesson 33, 34, 35, 36, 37, 38, 39)

Example: $2/3$ (two thirds) means 2 divided by 3

G

geometry

the area of mathematics that deals with points, lines, angles and shapes (Lesson 50)

graph

a way showing information in picture form (Lesson 56)

Example: bar graph, line graph and circle graph

greater than

a number that is larger than another number (Lesson 6)

Use this sign: $>$

grid

a network of horizontal (across) and vertical (up and down) lines for locating places on a map or table (Lesson 21, 57)

H

height

the distance from the top of a shape to the bottom (Lesson 53)

hexagon

a closed shape with six (6) sides (Lesson 51)

horizontal

the opposite of vertical; lines, words, or numbers running across the page from left to right; parallel to the ground (Lesson 21, 27, 56, 57)

horizontal data

the information along the bottom of a graph (Lesson 56)

hundredths

the decimal value two places to the right of the decimal point (Lesson 3)

I

increase

to get larger (Lesson 4, 5)

inequalities

algebraic equations that use the symbols: $>$ and $<$ (Lesson 62)

$>$ means **greater than**

$<$ means **less than**

Example: $2 - n > 6$ is an **inequality**

integers

whole numbers that have a positive (+) value or a negative (-) value

Zero (0) is also an **integer**

Examples: ... -2, -1, 0, +1, +2, +3...are integers

invert

to turn a fraction upside down (Lesson 38)

Example: $3/5$ **inverted** is $5/3$

isosceles triangle

has two (2) sides that are equal (Lesson 50)

K

kilometer (km)

unit of measure: one thousand meters (1000) (Lesson 52)

L

less than

a number that is smaller than another number (Lesson 6)

Use this sign: <

line graph

graph that uses a **line** to show information (Lesson 56)

A line graph shows changes over time.

lowest terms

means the same as reducing or simplifying a fraction; you find **lowest terms** by dividing the top and bottom of the fraction by the same number (Lesson 35)

Example: $6/9 = 2/3$

M

mathematical function

addition, subtraction, multiplication, or division (Lesson 5)

meter (m)

the basic metric unit of length (Lesson 52)

millimeter (mm)

unit of measure: one thousandth ($1/1000$) of a meter (Lesson 52)

millions period

the period that contains the numbers 1,000,000 – 999,999,999; it has ones, tens, and

hundreds places (Lesson 2)

mixed decimal

a number that has a whole number as well as a decimal point included in it (Lesson 3)

Example: 1.10

multiple

the product of a given whole number and any other number; multiples can be found for every number (Lesson 25)

Example: ***multiples of 2 are: 2,4,6,8,10,12,14.....***
 multiples of 5 are: 5,10,15, 20, 25, 30, 35.....
 multiples of 7 are: 7, 14, 21, 28, 35, 42

multiplication

a mathematical operation that gives the total number when you put together equal groups; for positive integers, it is adding a number to itself a specific number of times; repeated addition (Lesson 21)

Example: $5 \times 3 = 5 + 5 + 5 = 15$

N

necessary zeros

zeros that keep the place value in a number (Lesson 6)

Example: .07 is read seven hundredths

negative integers

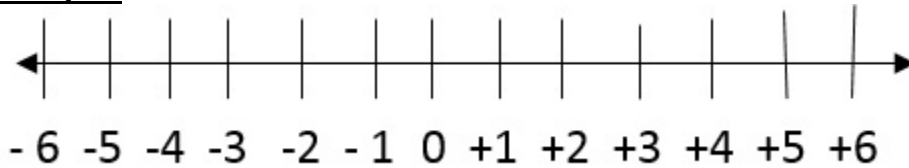
whole numbers that have a value less than zero (0) (Lesson 47)

Examples: -1, -2, -3, -4, -5...

number line

a number line displays positive (+) and negative (-) numbers and zero (Lesson 47)

Example:



number sequence

a series of numbers that follow a certain pattern (Lesson 5)

numerator

the top number of a fraction that tells the number of equal parts considered in the fraction (Lesson 28, 33)

Example: *In the fraction $\frac{2}{3}$, 2 is the numerator*

numeric system

our system of numbers expressed in digits or words (Lesson 1)

O

octagon

a closed shape with eight (8) sides (Lesson 51)

P

parallelogram

a quadrilateral that has opposite sides that are equal and parallel (Lesson 51)

pentagon

a closed shape with five (5) sides (Lesson 51)

percent

parts per 100; a word often used in business; it is another way of writing a decimal (Lesson 40, 41, 42, 43, 44, 45, 46)

*% is the symbol used for **percent***

Example: 20% means 20 per 100 or .20 or $20/100 = 1/2$ (These all mean the same thing and all have the same value)

perimeter

the distance around the outside (Lesson 52)

To find the perimeter of most shapes, you add the length of all of the sides.

periods

a group of three digits in a number (Lesson 2)

Note: Periods are separated by a comma.

place value

how much a number is worth in a place in our number system (Lesson 2)

positive integers

whole numbers that have a value greater than zero (0) (Lesson 47)

Examples: +1, +2, +3, +4, +5... or they can be written 1, 2, 3, 4, 5...

product

answer to a multiplication problem (Lesson 22)

Q

quadrilateral

a closed shape that has four (4) sides and four (4) angles (Lesson 51)

The sum of the angles of a quadrilateral is 360 degrees.

quotient

the number other than the remainder that is the result of dividing (Lesson 27)

Example: $63 \div 7 = 9$, 9 is the quotient

R

rectangle

a quadrilateral that has opposite sides that are equal and parallel with four (4) right angles (Lesson 51)

reduce

to make smaller by dividing the **numerator** and **denominator** by the same number; when working with fractions, you may need to reduce your answer to the lowest terms

Example:

$$\frac{4}{8} \div \frac{4}{4} = \frac{1}{2}$$

regrouping

the process of making groups of tens when adding or subtracting two-digit numbers (or more); another name for carrying and borrowing (Lesson 9,17)

Addition Example:

$$\begin{array}{r} 23 + 145 + 312 = \\ 23 \\ 145 \\ + 312 \\ \hline 480 \end{array}$$

As numbers get larger when you add, you may be required to carry (regroup). In the example to the left, when adding the column in the far right or the ones column (3+5+2), the result is 10. For the total, put down a '0' and carry (regroup) the number '1'. Add 1 to the next column. Continue to follow the same carry (regroup) procedure in the tens, hundreds and thousands place, etc.

Subtraction Example:

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remainder

the amount "left over" after performing division (Lesson 28)

right triangle

a triangle that has one (1) angle that is 90 degrees (Lesson 50)

rounding

finding the closest number (Lesson 4, 7, 15, 26)

a math skill that is used when you change a number to a ten, or hundred, or thousand, or ten thousand etc., to make the numbers easy to work with

Examples:

- a) 16 rounded to the nearest **ten** is **20**.
- b) 312 rounded to the nearest **hundred** is **300**.
- c) 51, 901 rounded to the nearest **thousand** is **52,000**.
- d) 19,444 rounded to the nearest **ten-thousand** is **20,000**.

rule

a procedure to follow in order to solve a problem (Lesson 58)

S

segment

the part of a **circle graph** that shows information (Lesson 56)

*Segments are sometimes called **sections**.*

signed number

a *number* preceded by a plus sign (+) to indicate a positive quantity or by a minus sign (−) to indicate a *negative* quantity (Lesson 47)

Example: +3, -2

square

a quadrilateral that has four (4) equal sides and four (4) equal angles (Lesson 51)

T

tenths

the decimal value immediately to the right of the decimal point (Lesson 3)

thousands period

the period that contains the numbers 1,000 – 999,999; it has ones, tens, and hundreds places (Lesson 2)

thousandths

the decimal value three places to the right of the decimal point (Lesson 3)

title

the name of a **graph**; a title tells what the graph is about (Lesson 56)

total

the sum or product of a number problem (Lesson 25)

trapezoid

a quadrilateral which is four-sided (4) with one pair of parallel sides (Lesson 51)

triangle

any closed shape that has three (3) sides (Lesson 50)

U**units period**

the period that contains the numbers 1 – 999; it has ones, tens, and hundreds places (Lesson 2)

unnecessary zeros

zeros that do not change the value of a number if they are removed (Lesson 6)

V**value**

how much something is worth (Lesson 2)

variable

an amount that can change in algebra; **variables** are shown as letters (Lesson 58)

vertical

opposite of horizontal; lines, words, or numbers running up—and-down (Lesson 21, 27, 56, 57)

vertical data

the information on the side of a graph (Lesson 56)

X**x-axis**

the horizontal number line which runs left and right on a grid (Lesson 57)

Y**y-axis**

the vertical number line which runs up and down on a grid (Lesson 57)