

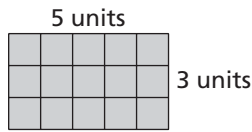
Glossary – Flash Cards

absolute value	addend
Addition Property of Equality	Addition Property of Inequality
Addition Property of Zero	algebraic expression

<p>A number to be added to another number.</p> <p>2 or 3 in the sum $2 + 3$.</p>	<p>The distance between a number and 0 on a number line. The absolute value of a number a is written as a.</p> $ -5 = 5$ $ 5 = 5$
<p>If you add the same number to each side of an inequality, the inequality remains true.</p> $\begin{array}{r} x - 4 > 5 \\ + 4 \quad + 4 \\ \hline x > 9 \end{array}$	<p>If you add the same number to each side of an equation, the two sides remain equal.</p> $\begin{array}{r} x - 4 = 5 \\ + 4 \quad + 4 \\ \hline x = 9 \end{array}$
<p>An expression that contains numbers, operations, and one or more variables.</p> $8 + x, 6 \times a - b$	<p>The sum of any number and 0 is that number.</p> $5 + 0 = 5$

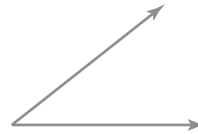
angle	area
Associative Properties of Addition and Multiplication	average
bar graph	center (of a circle)
circle	circle graph

The amount of surface covered by a figure. Area is measured in square units such as square feet (ft²) or square meters (m²).



$$A = 5 \times 3 = 15 \text{ square units}$$

A figure formed by two rays with the same endpoint.



A single number used to describe what is typical of a set of data. The average is the sum of the values in a data set divided by the number of data values; also called the mean.

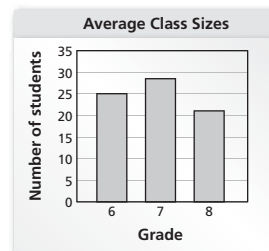
Changing the grouping of addends or factors does not change the sum or product.

$$(3 + 4) + 5 = 3 + (4 + 5)$$

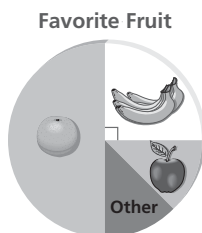
$$(3 \cdot 4) \cdot 5 = 3 \cdot (4 \cdot 5)$$

The point inside a circle that is the same distance from all points on the circle.

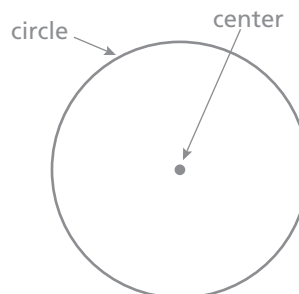
A graph in which the lengths of bars are used to represent and compare data.



Displays data as parts of a whole. The circle represents all of the data. Each section represents part of the data. The sum of the angle measures in a circle graph is 360°.



The set of all points in a plane that are the same distance from a point called the center.

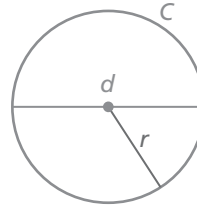


circumference	common factor
Commutative Properties of Addition and Multiplication	compatible numbers
composite figure	congruent (figures)
coordinate plane	cube

A factor that is shared by two or more whole numbers.

2 is a common factor of 8 and 10.

The distance around a circle.



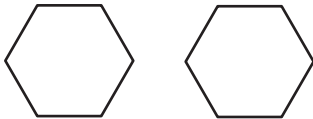
Numbers that are easy to compute mentally.

$$\begin{aligned} 237 \div 5\frac{5}{7} &\approx 237 \div 6 \\ &\approx 240 \div 6 \\ &= 40 \end{aligned}$$

Changing the order of addends or factors does not change the sum or product.

$$\begin{aligned} 2 + 8 &= 8 + 2 \\ 2 \cdot 8 &= 8 \cdot 2 \end{aligned}$$

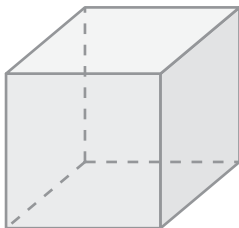
Figures that have exactly the same size and shape.



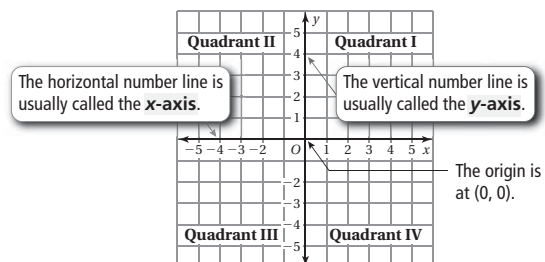
A figure made up of triangles, squares, rectangles, semicircles, and other two-dimensional figures.



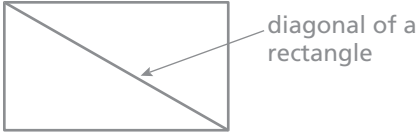
A rectangular prism with 6 congruent square faces.



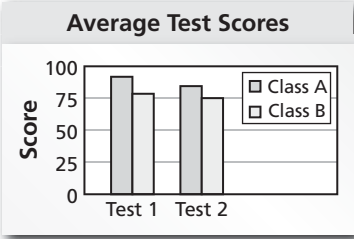
A coordinate plane is formed by the intersection of a horizontal number line, usually called the *x*-axis, and a vertical number line, usually called the *y*-axis.



cubic units	data
decimal	denominator
diagonal	diameter (of a circle)
difference	Distributive Property

<p>Information, often given in the form of numbers or facts.</p>	<p>The units volume is measured in.</p> <p>cubic feet (ft^3), cubic meters (m^3)</p>
<p>The number below the fraction bar in a fraction.</p> <p>In the fraction $\frac{2}{5}$, the denominator is 5.</p>	<p>A number that is written using the base-ten place value system. Each place value is ten times the place value to the right.</p> <p>The decimal 2.15 represents 2 ones plus 1 tenth plus 5 hundredths, or two and fifteen hundredths.</p>
<p>The distance across a circle through the center.</p>	<p>A line segment that connects two non-adjacent vertices of a polygon.</p> 
<p>To multiply a sum or difference by a number, multiply each number in the sum or difference by the number outside the parentheses. Then evaluate.</p> $3(2 + 9) = 3(2) + 3(9)$ $3(2 - 9) = 3(2) - 3(9)$	<p>The result when one number is subtracted from another number.</p> <p>The difference of 4 and 3 is $4 - 3$, or 1.</p>

dividend	divisible
Division Property of Equality	Division Property of Inequality
divisor	double bar graph
equation	equivalent expressions

<p>A number is divisible by another number if the other number is a factor of the first number.</p> <p>30 is divisible by 5, because 5 is a factor of 30.</p>	<p>The number to be divided in a division problem.</p> <p>In $25 \div 5$, the dividend is 25.</p>									
<p>If you divide each side of an inequality by the same positive number, the inequality remains true.</p> $4x < 8$ $\frac{4x}{4} < \frac{8}{4}$ $x < 2$	<p>If you divide each side of an equation by the same nonzero number, the two sides remain equal.</p> $4x = 32$ $\frac{4x}{4} = \frac{32}{4}$ $x = 8$									
<p>A bar graph that shows two sets of data on the same graph.</p>  <table border="1"> <caption>Average Test Scores</caption> <thead> <tr> <th>Test</th> <th>Class A</th> <th>Class B</th> </tr> </thead> <tbody> <tr> <td>Test 1</td> <td>90</td> <td>80</td> </tr> <tr> <td>Test 2</td> <td>85</td> <td>75</td> </tr> </tbody> </table>	Test	Class A	Class B	Test 1	90	80	Test 2	85	75	<p>The number you are dividing by in a division problem.</p> <p>In $40 \div 5$, the divisor is 5.</p>
Test	Class A	Class B								
Test 1	90	80								
Test 2	85	75								
<p>Expressions with the same value.</p> $7 + 4, 4 + 7$	<p>A mathematical sentence that uses an equal sign, =, to show that two expressions are equal.</p> $4x = 16, a + 7 = 21$									

equivalent fractions	equivalent ratios
estimate	evaluate (an algebraic expression)
exponent	expression
factor	formula

<p>Two ratios that describe the same relationship.</p> $\frac{2}{3} = \frac{4}{6}$	<p>Fractions that represent the same number.</p> <p>$\frac{2}{4}$ and $\frac{9}{18}$ are equivalent fractions that both represent $\frac{1}{2}$.</p>
<p>Substitute a number for each variable in an algebraic expression. Then use the order of operations to find the value of the numerical expression.</p> <p>Evaluate $3x + 5$ when $x = 6$.</p> $\begin{aligned} 3x + 5 &= 3(6) + 5 \\ &= 18 + 5 \\ &= 23 \end{aligned}$	<p>noun: An approximate solution to a problem.</p> <p>2π is about 6.28.</p> <p>verb: To find an approximate solution to a problem.</p> <p>You can estimate the sum of $98 + 53$ as $100 + 50$, or 150.</p>
<p>A mathematical phrase containing numbers, operations, and/or variables.</p>	<p>The exponent of a power is the number of times the factor is repeated.</p> <p>The exponent of the power 2^4 is 4.</p>
<p>An equation that shows how one variable is related to one or more other variables.</p> <p>$A = \ell w$ is the formula for the area of a rectangle.</p>	<p>When whole numbers other than zero are multiplied together, each number is a factor of the product.</p> <p>$2 \times 3 \times 4 = 24$, so 2, 3, and 4 are factors of 24.</p>

fraction	function
function rule	graph (of a function)
graph of an inequality	greatest common factor (GCF)
improper fraction	inductive

A relationship that pairs each input with exactly one output.

The ordered pairs $(0, 1)$, $(1, 2)$, $(2, 4)$, and $(3, 6)$ represent a function.

Ordered Pairs

$(0, 1)$

$(1, 2)$

$(2, 4)$

$(3, 6)$

Input

0

1

2

3

Output

1

2

4

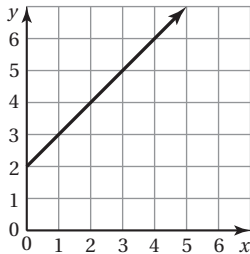
6

A number in the form $\frac{a}{b}$, where $b \neq 0$.

$\frac{1}{2}, \frac{5}{9}$

A representation of all the points that are solutions of a function rule.

The graph of $y = x + 2$ is shown.



An equation that describes the relationship between inputs and outputs.

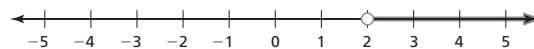
The function rule "the output is three less than the input" is represented by the equation $y = x - 3$.

The largest of the common factors of two or more nonzero whole numbers.

The common factors of 12 and 20 are 1, 2, and 4. So the GCF of 12 and 20 is 4.

A graph that shows all of the solutions of an inequality on a number line.

$$x > 2$$



Making conclusions from several known cases.

A fraction in which the numerator is greater than or equal to the denominator.

$\frac{5}{4}, \frac{9}{9}$

inequality	input
input-output table	integers
inverse operations	least common denominator (LCD)
least common multiple (LCM)	like terms

<p>A number on which a function operates.</p>	<p>A mathematical sentence that compares expressions. It contains the symbols $<$, $>$, \leq, or \geq.</p> $x - 4 < 14, x + 5 \geq 67$										
<p>The numbers ..., -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, ...</p>	<p>A table that lists the output of a function for each input.</p> <table border="1" data-bbox="922 726 1198 978"> <thead> <tr> <th>Input, x</th> <th>Output, y</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>3</td> </tr> <tr> <td>2</td> <td>4</td> </tr> <tr> <td>3</td> <td>5</td> </tr> <tr> <td>4</td> <td>6</td> </tr> </tbody> </table>	Input, x	Output, y	1	3	2	4	3	5	4	6
Input, x	Output, y										
1	3										
2	4										
3	5										
4	6										
<p>The least common multiple of the denominators of two or more fractions.</p> <p>The least common denominator of $\frac{3}{4}$ and $\frac{5}{6}$ is the least common multiple of 4 and 6, or 12.</p>	<p>Operations that "undo" each other, such as addition and subtraction or multiplication and division.</p>										
<p>Terms that have identical variable parts.</p> $4 \text{ and } 8, 2x \text{ and } 7x$	<p>The smallest of the common multiples of two or more nonzero whole numbers.</p> <p>Multiples of 10: 10, 20, 30, 40, ... Multiples of 15: 15, 30, 45, 60, ...</p> <p>The least common multiple of 10 and 15 is 30.</p>										

line	line segment
linear function	mapping diagram
mean	measure of central tendency
median	mixed number

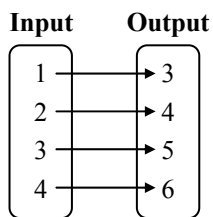
Part of a line that consists of two points, called endpoints, and all of the points on the line between the endpoints.



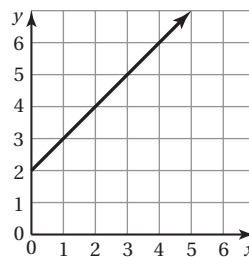
A set of points that extends without end in two opposite directions.



A way to represent a function.



A function whose graph is a line.



A measure that represents the center of a data set.

The mean, median, and mode are all measures of central tendency.

The sum of the values in a data set divided by the number of data values.

The mean of the values 7, 4, 8, and 9 is

$$\frac{7 + 4 + 8 + 9}{4} = \frac{28}{4} = 7.$$

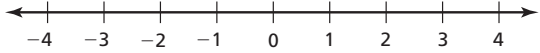
A number that has a whole number part and a fraction part.

$$3\frac{1}{2}, 6\frac{2}{3}$$

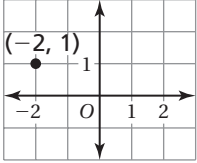
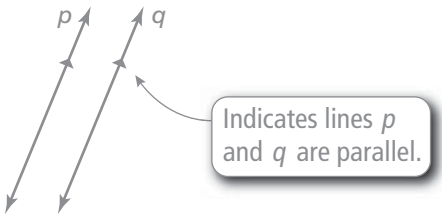
For a data set with an odd number of ordered values, the median is the middle data value. For a data set with an even number of ordered values, the median is the mean of the two middle values.

The median of the data set 24, 25, 29, 33, 38 is 29 because 29 is the middle value.

mode	Multiplication Properties of Zero and One
Multiplication Property of Equality	Multiplication Property of Inequality
negative integers	negative number
number line	numerator

<p>The product of any number and 0 is 0. The product of any number and 1 is that number.</p> $5 \cdot 0 = 0$ $6 \cdot 1 = 6$	<p>The data value or values that occur most often. Data can have one mode, more than one mode, or no mode.</p> <p>The modes of the data set 3, 4, 4, 7, 7, 9, 12 are 4 and 7 because they occur most often.</p>
<p>If you multiply each side of an inequality by the same positive number, the inequality remains true.</p> $\frac{x}{4} < 2$ $\frac{x}{4} \cdot 4 < 2 \cdot 4$ $x < 8$	<p>If you multiply each side of an equation by the same nonzero number, the two sides remain equal.</p> $\frac{x}{4} = 2$ $\frac{x}{4} \cdot 4 = 2 \cdot 4$ $x = 8$
<p>A number less than 0.</p> <p>-0.25, -10, -500</p>	<p>Integers that are less than zero.</p> <p>-1, -2, -3, -4, -5, ...</p>
<p>The number above the fraction bar in a fraction.</p> <p>In the fraction $\frac{2}{5}$, the numerator is 2.</p>	<p>A line whose points are associated with numbers that increase from left to right.</p> 

numerical expression	order of operations
ordered pair	origin
outlier	output
overestimate	parallel (lines)

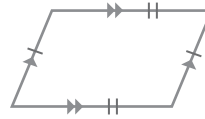
<p>The order in which to perform operations when evaluating expressions with more than one operation.</p> <p>To evaluate $5 + 2 \times 3$, you perform the multiplication before the addition.</p>	<p>An expression that contains only numbers and operations.</p> $12 + 6, 18 + 3 \times 4$
<p>The point, represented by the ordered pair $(0, 0)$, where the x-axis and the y-axis meet in a coordinate plane.</p>	<p>A pair of numbers (x, y) used to locate a point in a coordinate plane. The first number is the x-coordinate, and the second number is the y-coordinate.</p>  <p>The x-coordinate of the point $(-2, 1)$ is -2, and the y-coordinate is 1.</p>
<p>A number produced by evaluating a function using a given input.</p>	<p>A data value that is much greater or much less than the other values.</p> <p>In the data set 23, 42, 33, 117, 36, and 40, the outlier is 117.</p>
<p>Two lines in the same plane that do not intersect.</p> 	<p>An estimate that is greater than the exact answer.</p> $16\frac{1}{4} \times 4\frac{2}{5} \approx 17 \times 5 = 85$

parallelogram	percent
perimeter	pi (π)
pictograph	place value
plane	point

The number of parts per one hundred.

$$37\% = 37 \text{ out of } 100 = \frac{37}{100}$$

A quadrilateral with two pairs of parallel sides.



The ratio of the circumference of a circle to its diameter.

You can use 3.14 or $\frac{22}{7}$ to approximate π .

The distance around a figure. Perimeter is measured in linear units such as feet (ft) or meters (m).

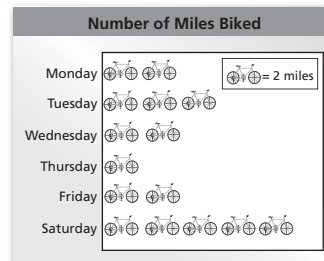


$$\text{Perimeter} = 18 + 6 + 18 + 6 = 48 \text{ ft}$$

The place value of each digit in a number depends on its position within the number.

In 521, 5 is in the hundreds place and has a value of 500.

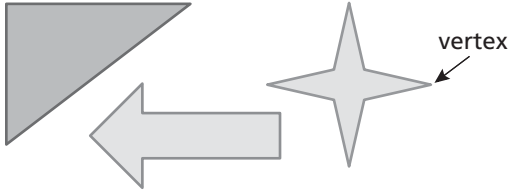
A graph that uses pictures or symbols to display data.



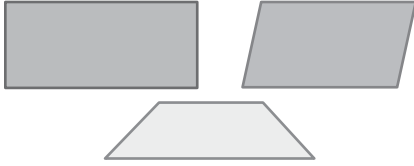

A position in space represented with a dot.

A flat surface that extends without end in all directions.

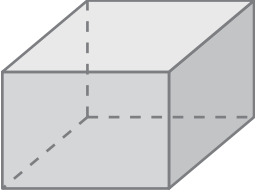
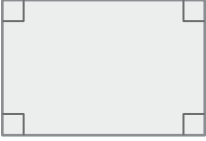

polygon	positive integers
positive number	power
prime factorization	prime number
product	quadrants

<p>Integers that are greater than zero.</p> <p>1, 2, 3, 4, 5, ...</p>	<p>A closed plane figure made up of three or more line segments that intersect only at their endpoints.</p> 
<p>A product formed from repeated multiplication by the same number or expression. A power consists of a base and an exponent.</p> <p>2^4 is a power with base 2 and exponent 4.</p>	<p>A number greater than 0.</p> <p>0.5, 2, 100</p>
<p>A whole number greater than 1 whose only factors are 1 and itself.</p> <p>2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, ...</p>	<p>A whole number written as the product of prime numbers.</p> <p>$60 = 2 \times 2 \times 3 \times 5$</p>
<p>The four regions created by the intersection of the x-axis and the y-axis in a coordinate plane.</p>	<p>The result when two or more numbers are multiplied.</p> <p>The product of 4 and 3 is 4×3, or 12.</p>

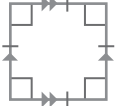
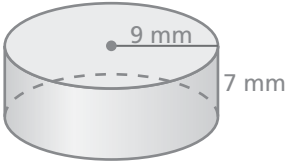
quadrilateral	quotient
radius (of a circle)	range (of a data set)
rate	ratio
ray	reciprocals

<p>The result of a division.</p> <p>The quotient of 10 and 5 is $10 \div 5$, or 2.</p>	<p>A polygon with four sides.</p> 
<p>The difference between the greatest value and the least value of a data set. The range describes how spread out the data are.</p> <p>The range of the data set 12, 16, 18, 22, 27, 35 is $35 - 12 = 23$.</p>	<p>The distance from the center of a circle to any point on the circle.</p>
<p>A comparison of two quantities using division. The ratio of a to b (where $b \neq 0$) can be written as a to b, $a : b$, or $\frac{a}{b}$.</p> <p>4 to 1, $4 : 1$, or $\frac{4}{1}$</p>	<p>A ratio of two quantities with different units.</p> <p>You read 3 books every 2 weeks.</p>
<p>Two numbers whose product is 1.</p> <p>Because $\frac{4}{5} \times \frac{5}{4} = 1$, $\frac{4}{5}$ and $\frac{5}{4}$ are reciprocals.</p>	<p>A part of a line that has one endpoint and extends without end in one direction.</p> 

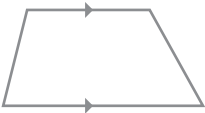
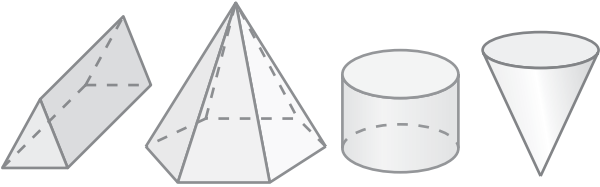
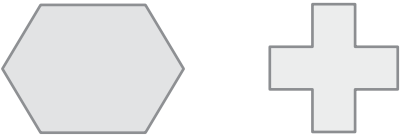
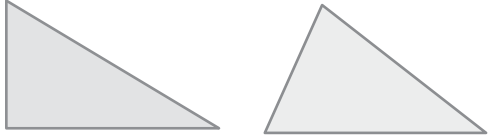
rectangle	rectangular prism
remainder	repeating decimal
round	semicircle
simplest form of a fraction	solution (of an equation)

<p>A three-dimensional figure that has 6 rectangular sides.</p> 	<p>A parallelogram with four right angles.</p> 
<p>A decimal that repeats a pattern of one or more digits.</p> $0.555\dots = 0.\overline{5}$ $1.727272\dots = 1.\overline{72}$	<p>If a divisor does not divide a dividend evenly, the remainder is the whole number left over after the division.</p> $\begin{array}{r} 4 \text{ R } 2 \text{ The remainder is } 2. \\ 7 \overline{)30} \\ \underline{28} \\ 2 \end{array}$
<p>One half of a circle.</p> 	<p>To approximate a number to a given place value.</p> <p>132 rounded to the nearest ten is 130.</p>
<p>A value that makes an equation true.</p> <p>6 is the solution of the equation $x - 4 = 2$.</p>	<p>A fraction is in simplest form if its numerator and denominator have a greatest common factor (GCF) of 1.</p> <p>The simplest form of the fraction $\frac{10}{15}$ is $\frac{2}{3}$.</p>

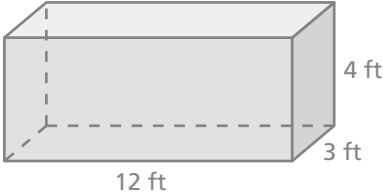
solution of an inequality	solution set
solve a formula	square
Subtraction Property of Equality	Subtraction Property of Inequality
sum	surface area of a solid

<p>The set of all solutions of an inequality.</p>	<p>A value that makes an inequality true.</p> <p>A solution of the inequality $x + 3 > 9$ is $x = 12$.</p>
<p>A parallelogram with four right angles and four sides of equal length.</p> 	<p>Find the value of one variable by substituting numbers for the other variables.</p> $\begin{aligned} \ell &= 6 \text{ in.}, w = 10 \text{ in.} \\ P &= 2\ell + 2w \\ &= 2(6) + 2(10) \\ &= 32 \text{ in.} \end{aligned}$
<p>If you subtract the same number from each side of an inequality, the inequality remains true.</p> $\begin{array}{r} x + 4 > 5 \\ \underline{-4} \quad \underline{-4} \\ x > 1 \end{array}$	<p>If you subtract the same number from each side of an equation, the two sides remain equal.</p> $\begin{array}{r} x + 4 = 5 \\ \underline{-4} \quad \underline{-4} \\ x = 1 \end{array}$
<p>The sum of the areas of the outside surfaces of a solid.</p>  $\begin{aligned} \text{Surface area} &= 2\pi r^2 + 2\pi rh \\ &\approx 904.32 \text{ mm}^2 \end{aligned}$	<p>The result when two or more numbers are added.</p> <p>The sum of 4 and 3 is $4 + 3$, or 7.</p>

terminating decimal	terms
three-dimensional figure	trapezoid
triangle	two-dimensional figure
two-step equation	underestimate

<p>The parts of an expression that are added together.</p> <p>The terms of $4x + 7$ are $4x$ and 7.</p>	<p>A decimal that ends. A decimal that can be written as a fraction.</p> <p>1.5, 2.58, 100.1</p>
<p>A quadrilateral with exactly one pair of parallel sides.</p> 	<p>A figure that has length, width, and depth.</p> 
<p>A figure that has only length and width.</p> 	<p>A polygon with three sides.</p> 
<p>An estimate that is less than the exact answer.</p> $35\frac{7}{8} \times 8\frac{1}{3} \approx 35 \times 8$ $= 280$	<p>An equation that contains two different operations.</p> $3x + 4 = 7, 2x - 5 = 13$

unit cost	unit rate
variable	vertex of a polygon
volume	whole numbers
x-axis	x-coordinate

<p>A rate that compares a quantity to one unit of another quantity.</p> <p>The speed limit is 65 miles per hour.</p>	<p>A unit rate for cost per unit.</p> <p>The cost per bottle is \$3.</p>
<p>A point at which two sides of a polygon meet. The plural of vertex is vertices.</p>	<p>A symbol, usually a letter, that represents one or more numbers.</p> <p>x is a variable in $2x + 1$.</p>
<p>The numbers 0, 1, 2, 3, 4, ...</p>	<p>A measure of the amount of space that a three-dimensional figure occupies. Volume is measured in cubic units such as cubic feet (ft^3) or cubic meters (m^3).</p>  <p style="text-align: center;">$V = \ell wh = 12(3)(4) = 144 \text{ ft}^3$</p>
<p>The first coordinate in an ordered pair, which indicates how many units to move to the left or right.</p> <p>In the ordered pair $(3, 5)$, the x-coordinate is 3.</p>	<p>The horizontal number line in a coordinate plane.</p>

y-axis

y-coordinate

The second coordinate in an ordered pair, which indicates how many units to move up or down.

In the ordered pair $(3, 5)$, the y -coordinate is 5.

The vertical number line in a coordinate plane.