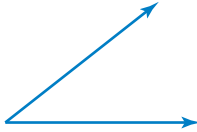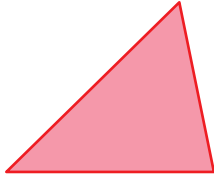# Glossary

This student friendly glossary is designed to be a reference for key vocabulary, properties, and mathematical terms. Several of the entries include a short example to aid your understanding of important concepts.

Also available at BigIdeasMath.com:

- multi-language glossary
- vocabulary flash cards

|	
absolute value The distance between a number and 0 on a number line. The absolute value of a number a is written as $\lvert a \rvert$. $$\lvert -5 \rvert = 5$$ $$\lvert 5 \rvert = 5$$	**acute angle** An angle whose measure is less than 90°.
acute triangle A triangle that has all acute angles. 	**Addition Property of Equality** Adding the same number to each side of an equation produces an equivalent equation. $$x - 7 = -6$$ $$\underline{+\,7 \quad\quad +\,7}$$ $$x = 1$$
Addition Property of Inequality If you add the same number to each side of an inequality, the inequality remains true. $$x - 3 > -10$$ $$\underline{+\,3 \quad\quad +\,3}$$ $$x > -7$$	**Addition Property of Zero** The sum of any number and 0 is that number. $$-5 + 0 = -5$$

angle

A figure formed by two rays with the same endpoint.
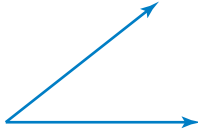
area

The amount of surface covered by a figure. Area is measured in square units such as square feet $\left(\text{ft}^2\right)$ or square meters $\left(\text{m}^2\right)$.
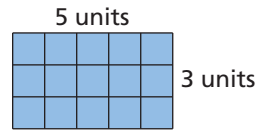
5 units

3 units

$A = 5 \times 3 = 15$ square units

Associative Properties of Addition and Multiplication

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

$$\left(-3 + 4\right) + 5 = -3 + \left(4 + 5\right)$$
$$\left(-3 \bullet 4\right) \bullet 5 = -3 \bullet \left(4 \bullet 5\right)$$

average

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.

See mean.

bad check

A bad check occurs when the amount written on the check is greater than the balance available in the checking account; also called a bounced check.

Date	Check #	Transaction	Credit	Debit	Balance
		Balance Forward			190.60
6/2/12	417	Clothing Store		69.95	120.65
6/3/12		Deposit Paycheck	370.54		491.19
6/3/12	418	Gas Company		52.37	438.82
6/5/12	419	Cell Phone Company		75.89	362.93
6/7/12	420	Car Payment		275.10	87.83
6/9/12	421	Water Company		93.75	–5.92
6/13/12		Deposit	100.00		94.08
6/14/12	422	Birthday Gift		25.00	69.08

Check #421 is a bad check.

bar graph

A graph that shows data in specific categories. The lengths of bars are used to represent and compare data.
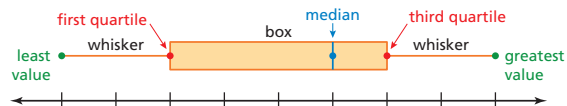
Average Class Sizes
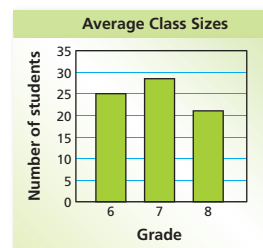
base (of a power)

The number or expression that is used as a factor in a repeated multiplication.

See power.

box-and-whisker plot

A type of graph that shows the variability of a data set using quartiles.

first quartile   median   third quartile

box

least   whisker   whisker   greatest
value   value

checkbook registry

A document used to record credits to an account and debits from an account.

Date	Check #	Transaction	Credit	Debit	Balance
5/17/12	998	Cell Phone Company		58.00	372.85
5/17/12	999	Car Payment		82.66	
5/18/12		Deposit Paycheck	501.50		
5/18/12	1000	Birthday Gift		41.28	

checking account

A service provided by a financial institution that allows you to deposit money in an account and then write personal checks using money from the account.

circle

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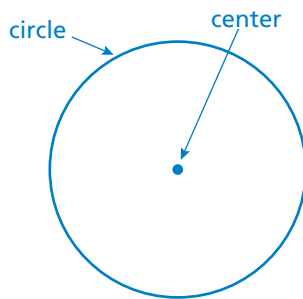
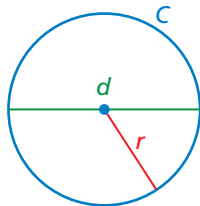**circle graph**

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°.
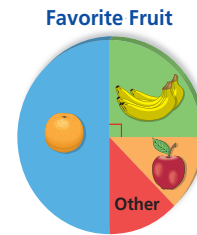
circumference

The distance around a circle.

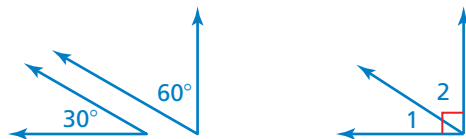**Commutative Properties of Addition and Multiplication**

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

$$-2 + 8 = 8 + (-2)$$
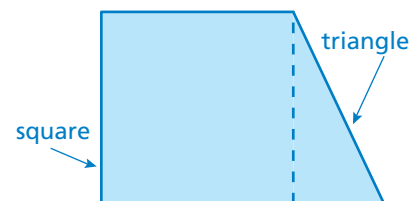$$-2 \cdot 8 = 8 \cdot (-2)$$

complementary angles
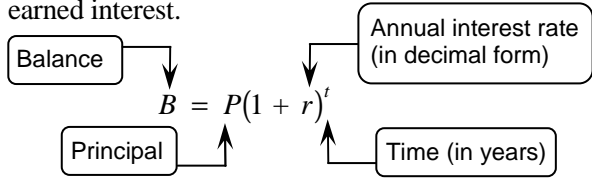
Two angles whose measures have a sum of 90°.

composite figure

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

compound interest

Interest earned on the principal and on the previously earned interest.

Annual interest rate (in decimal form)

Balance

$$B = P(1 + r)^t$$

Principal

Time (in years)

You deposit $200 in a savings account. The account earns 5% interest compounded annually. What is the balance after 6 years?
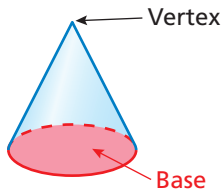
$$B = 200(1 + 0.05)^6 \qquad B \approx \$268.02$$
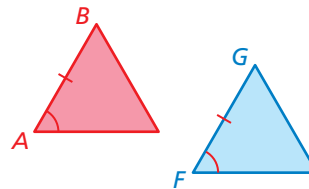
concave polygon

A polygon in which at least one line segment connecting any two vertices lies outside the polygon
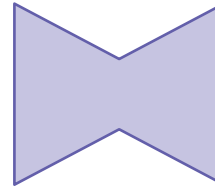
cone

A solid that has one circular base and one vertex.

Vertex

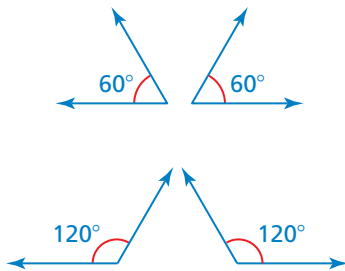Base

congruent

Having the same size and shape.

B

G

A

F

$\angle A$ is congruent to $\angle F$.
Side AB is congruent to side FG.

congruent angles

Angles that have the same measure.

60° 60°

120° 120°

congruent sides

Sides that have the same length.

See isosceles triangle.

constant term

A term that has a number but no variable.

In the expression $2x + 8$, the term 8 is a constant term.

continuous domain

A set of input values that consists of all numbers in an interval.

All numbers from 1 to 5.

$-1 \quad 0 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6$

conversion factor

A rate that equals 1. A conversion factor is used to convert units.
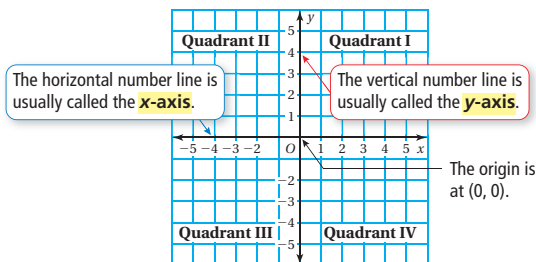
$$1 \text{ mile } = 5280 \text{ feet}$$

convex polygon

A polygon in which every line segment connecting any two vertices lies entirely inside the polygon.

coordinate plane

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.

Quadrant II Quadrant I
The horizontal number line is usually called the **x-axis**.
The vertical number line is usually called the **y-axis**.
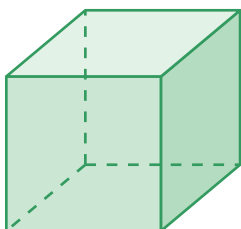The origin is at (0, 0).
Quadrant III Quadrant IV

credit card

A card used to postpone payment on a purchase.

cube
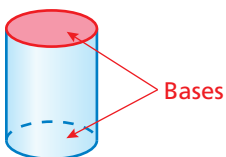
A rectangular prism with 6 congruent square faces.

cube(d)

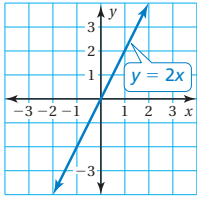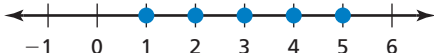A number cubed is the number raised to the third power.
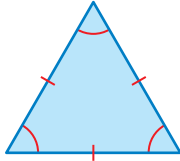
2 cubed means 2^3, or 8.

cylinder

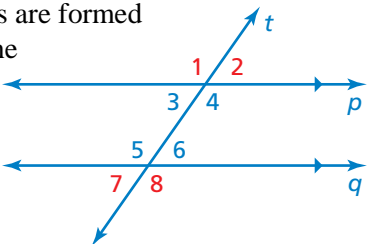A solid that has two parallel, congruent circular bases.

Bases

data

Information, often given in the form of numbers or facts.

debit card	**decimal**
A card that allows you to withdraw cash from ATMs and pay for purchases in stores. The money is taken directly from your account.	A number that is written using the base-ten place value system. Each place value is ten times the place value to the right. The decimal 2.15 represents 2 ones plus 1 tenth plus 5 hundredths, or two and fifteen hundredths.
degree	**diameter (of a circle)**
A unit used to measure angles. $90°, 45°, 32°$	The distance across a circle through the center. *See circumference.*
difference	**direct variation**
The result when one number is subtracted from another number. The difference of 4 and -3 is $4 - (-3)$, or 7.	Two quantities x and y show direct variation when $y = kx$, where k is a number and $k \neq 0$. The graph is a line that passes through the origin.
discrete domain	**Distributive Property**
A set of input values that consists of only certain numbers in an interval. Integers from 1 to 5. 	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. $$3(2 + 9) = 3(2) + 3(9)$$ $$3(2 - 9) = 3(2) - 3(9)$$

Division Property of Equality

Dividing each side of an equation by the same number produces an equivalent equation

$$4x = -40$$
$$\frac{4x}{4} = \frac{-40}{4}$$
$$x = -10$$

Division Property of Inequality

If you divide each side of an inequality by the same positive number, the inequality remains true.

If you divide each side of an inequality by the same negative number, the inequality symbol must be reversed for the inequality to remain true.

$$4x > -12 \qquad\qquad -5x > 30$$
$$\frac{4x}{4} > \frac{-12}{4} \qquad\qquad \frac{-5x}{-5} < \frac{30}{-5}$$
$$x > -3 \qquad\qquad x < -6$$

domain

The set of all input values of a function.

For the ordered pairs $(0, 6)$, $(1, 7)$, $(2, 8)$, and $(3, 9)$, the domain is 0, 1, 2, and 3.

equation

A mathematical sentence that uses an equal sign, =, to show that two expressions are equal.

$$4x = 16, \; a + 7 = 21$$

equiangular triangle

A triangle that has three congruent angles. An equiangular triangle is also an equilateral triangle.

See equilateral triangle.

equilateral triangle

A triangle that has three congruent sides. An equilateral triangle is also an equiangular triangle.

equivalent equation

Equations that have the same solution(s).

$$2x - 8 = 0 \text{ and } 2x = 8$$

equivalent expressions

Expressions with the same value.

$$7 + 4, \; 4 + 7$$
$$(ab)^2, \; a^2 b^2$$

estimate	**evaluate (an algebraic expression)**
To find an approximate solution to a problem.	Substitute a number for each variable in an algebraic expression. Then use the order of operations to find the value of the numerical expression.
You can estimate the sum of $98 + 53$ as $100 + 50,$ or 150.	Evaluate $3x + 5$ when $x = 6.$ $$3x + 5 = 3(6) + 5$$ $$= 18 + 5$$ $$= 23$$
exponent	**expression**
The number of times a base is used as a factor in a repeated multiplication.	A mathematical phrase containing numbers, operations, and/or variables.
See power.	$12 + 6, 18 + 3 \times 4,$ $8 + x, 6 \times a - b$
exterior angles	**factor**
When two parallel lines are cut by a transversal, four exterior angles are formed on the outside of the parallel lines. $\angle 3, \angle 4, \angle 5,$ and $\angle 6$ are interior angles. $\angle 1, \angle 2, \angle 7,$ and $\angle 8$ are exterior angles.	When whole numbers other than zero are multiplied together, each number is a factor of the product. $2 \times 3 \times 4 = 24,$ so 2, 3, and 4 are factors of 24.
formula	**fraction**
An equation that shows how one variable is related to one or more other variables.	A number in the form $\dfrac{a}{b},$ where $b \neq 0.$
$A = \ell w$ is the formula for the area of a rectangle.	$\dfrac{1}{2}, \dfrac{5}{9}$

frequency table

A table used to count how many times data values occur in intervals.

Pairs of shoes	Frequency
1–5	11
6–10	4
11–15	0
16–20	3
21–25	6

function

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	Input	Output
$(0, 1)$	0	1
$(1, 2)$	1	2
$(2, 4)$	2	4
$(3, 6)$	3	6

function form

An equation that is solved for y is in function form.

$$y = -x + 1$$

function rule

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 $y = x - 3$.

graph of an inequality

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

$$x > -2$$

gross pay

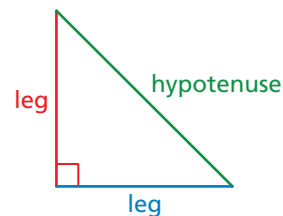The amount of money earned by an employee during a pay period.

See payroll statement.

histogram

A bar graph that shows the frequencies of data values in intervals of the same size. The height of a bar represents the frequency of the values in the interval. There are no spaces between bars.
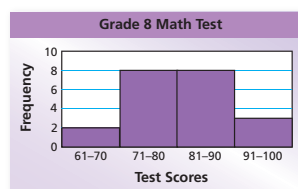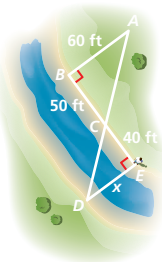

hypotenuse

The side of a right triangle that is opposite the right angle.

indirect measurement

Using similar figures to find a missing measurement that is difficult to find directly.

$$\frac{x}{60} = \frac{40}{50}$$

$$60 \bullet \frac{x}{60} = 60 \bullet \frac{40}{50}$$

$$x = 48$$

The distance across the river is 48 feet.

inductive

Making conclusions from several known cases.

inequality

A mathematical sentence that compares expressions. It contains the symbols $<$, $>$, $\leq$, or $\geq$.

$$x - 4 < -14, \quad x + 5 \geq -67$$

input

A number on which a function operates.

See function.

input-output table

A table that lists the output of a function for each input.

Input, x	Output, y
1	3
2	4
3	5
4	6

installment loan

A loan that is paid back in equal increments over the term of the loan.

A car loan is an installment loan.

integers
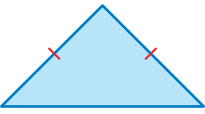
The set of whole numbers and their opposites.

$$\ldots -3, -2, -1, 0, 1, 2, 3, \ldots$$

interest

Money paid or earned for the use of money.

See simple interest.

|	
interest charge The product of the monthly interest rate of a credit card and the average daily balance on the credit card.	**interior angles** When two parallel lines are cut by a transversal, four interior angles are formed on the inside of the parallel lines. *See exterior angles.*
inverse operations Operations that "undo" each other, such as addition and subtraction or multiplication and division.	**irrational number** A number that cannot be written as the ratio of two integers. $$\pi, \sqrt{14}$$
isosceles triangle A triangle that has at least two congruent sides. 	**legs** The two sides of a right triangle that form the right angle. *See hypotenuse.*
like terms Terms that have identical variable parts. 4 and 8, $2x$ and $7x$	**line** A set of points that extends without end in two opposite directions.

line graph
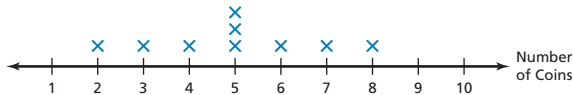
A type of graph that shows how data changes over time.

6–Mile Hike
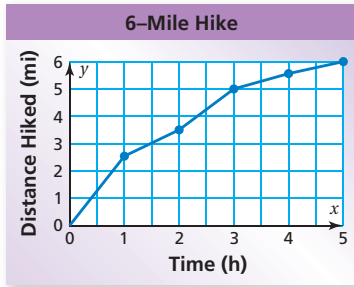
line of best fit

A line drawn on a scatter plot that is close to most of the data points. It can be used to estimate data on a graph.

Study Time and Test Scores
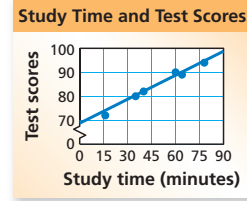
line plot

A type of graph that shows the number of times each value occurs in a data set.

line segment

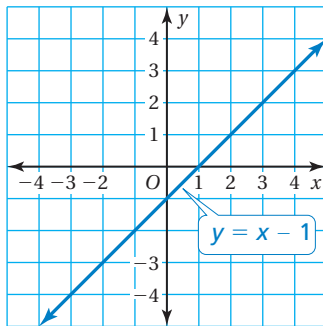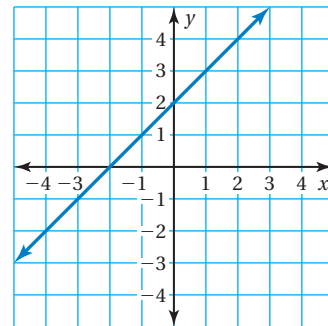Part of a line that consists of two points, called endpoints, and all of the points on the line between the endpoints.

linear equation

An equation whose graph is a line.

$y = x + 1$

$y = x - 1$

linear function

A function that has a constant rate of change. The graph of a linear function is a line.

literal equation

An equation that has two or more variables.

$$2y + 6x = 12$$

loan

Money borrowed for a specified amount of time.

You take out a $10,000 loan to pay for college tuition.

mapping diagram	**mean**
A way to represent a function. **Input** **Output** 1 → 3 2 → 4 3 → 5 4 → 6	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 $$\frac{7 + 4 + 8 + 9}{4} = \frac{28}{4} = 7.$$
measure of central tendency	**median**
A measure that represents the center of a data set. The mean, median, and mode are all measures of central tendency.	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.
metric system	**mode**
Decimal system of measurement, based on powers of 10, that contains units for length, capacity, and mass. centimeter, meter, liter, kilogram	The data value or values that occur most often. Data can have one mode, more than one mode, or no mode. The modes of the data set 3, 4, 4, 7, 7, 9, 12 are 4 and 7 because they occur most often.
mortgage	**Multiplication Properties of Zero and One**
An installment loan used to buy a house. Your monthly mortgage payment is $850.	The product of any number and 0 is 0. The product of any number and 1 is that number. $$-5 \bullet 0 = 0$$ $$-6 \bullet 1 = -6$$

Multiplication Property of Equality

Multiplying each side of an equation by the same number produces an equivalent equation.

$$-\frac{2}{3}x = 8$$

$$-\frac{3}{2} \bullet \left(-\frac{2}{3}x\right) = -\frac{3}{2} \bullet 8$$

$$x = -12$$

Multiplication Property of Inequality

If you multiply each side of an inequality by the same positive number, the inequality remains true.

If you multiply each side of an inequality by the same negative number, the direction of the inequality symbol must be reversed for the inequality to remain true.

$$\frac{x}{2} < -9 \qquad\qquad \frac{x}{-6} < 3$$

$$2 \bullet \frac{x}{2} < 2 \bullet (-9) \qquad -6 \bullet \frac{x}{-6} > -6 \bullet 3$$

$$x < -18 \qquad\qquad x > -18$$

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negative number

A number less than 0.

$$-0.25, -10, -500$$

net pay

The amount of money an employee receives after all the deductions have been made.
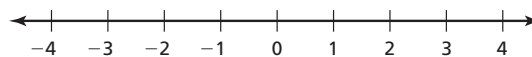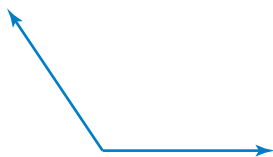
See payroll statement.

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nonlinear function

A function that does not have a constant rate of change. The graph of a nonlinear function is not a line.
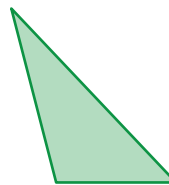

$y = x^3$
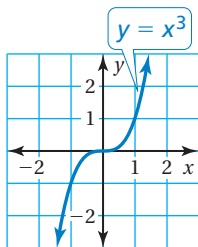
number line

A line whose points are associated with numbers that increase from left to right.

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obtuse angle

An angle whose measure is greater than $90°$ and less than $180°$.

obtuse triangle

A triangle that has one obtuse angle.

---

order of operations

The order in which to perform operations when evaluating expressions with more than one operation.

To evaluate $5 + 2 \times 3,$ you perform the multiplication before the addition.

ordered pair

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.
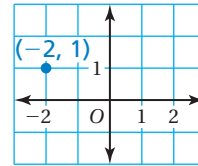
The x-coordinate of the point $(-2, 1)$ is $-2,$ and the y-coordinate is 1.

origin

The point, represented by the ordered pair $(0, 0),$ where the x-axis and the y-axis meet in a coordinate plane.

See coordinate plane.

outlier

A data value that is much greater or much less than the other values.

In the data set 23, 42, 33, 117, 36, and 40, the outlier is 117.
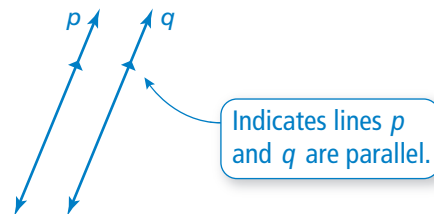
output

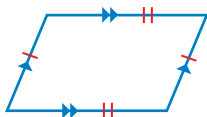A number produced by evaluating a function using a given input.

See function.

parallel (lines)

Two lines in the same plane that do not intersect. Parallel lines have the same slope.

Indicates lines p and q are parallel.

parallelogram

A quadrilateral with two pairs of parallel sides.

payroll statement

A document that shows an employee's gross pay, deductions, and net pay.

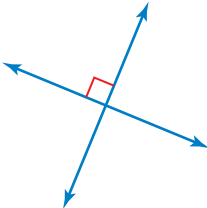| **percent**	**perfect square**
A ratio whose denominator is 100. The symbol for percent is %. $$40\% = \frac{40}{100} = 0.4$$	A number with integers as its square roots. 16, 25, 81

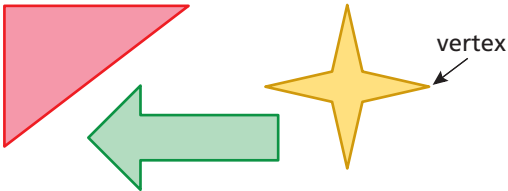| **perimeter**	**perpendicular lines**
The distance around a figure. Perimeter is measured in linear units such as feet (ft) or meters (m). 6 ft 18 ft Perimeter $= 18 + 6 + 18 + 6 = 48$ ft	Lines that intersect at right angles.
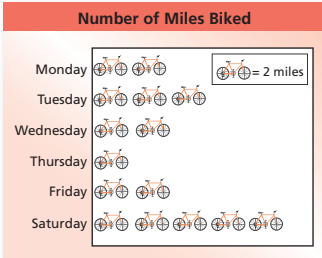
pictograph	**plane**
A type of graph that shows data using pictures. **Number of Miles Biked** Monday Tuesday Wednesday Thursday Friday Saturday = 2 miles	A flat surface that extends without end in all directions.
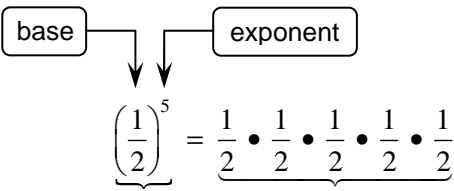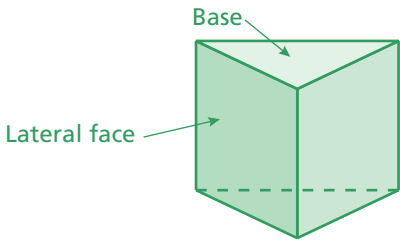
point	**polygon**
A position in space represented with a dot.	A closed plane figure made up of three or more line segments that intersect only at their endpoints. vertex

|	
positive number A number greater than 0. 0.5, 2, 100	**power** A product of repeated factors. base |————⌐ ┌———— exponent $$\left(\frac{1}{2}\right)^5 = \frac{1}{2} \bullet \frac{1}{2} \bullet \frac{1}{2} \bullet \frac{1}{2} \bullet \frac{1}{2}$$ Power $\frac{1}{2}$ is used as a factor 5 times.
prime factorization A whole number written as the product of prime numbers. The prime factorization of 60 is $2 \times 2 \times 3 \times 5$.	**principal** An amount of money borrowed or deposited. You deposit $200 in an account that earns 4% simple interest. The principal is $200.
prism A polyhedron that has two parallel, congruent bases. The other faces are parallelograms. Base Lateral face	**product** The result when two or more numbers are multiplied. The product of 4 and -3 is $4 \times (-3)$, or -12.
Product of Powers Property To multiply powers with the same base, add their exponents. $$3^7 \times 3^{10} = 3^{7+10} = 3^{17}$$	**Product Property of Square Roots** $\sqrt{xy} = \sqrt{x} \bullet \sqrt{y}$, where $x, \ y \geq 0$ $$\sqrt{4 \bullet 3} = \sqrt{4} \bullet \sqrt{3} = 2\sqrt{3}$$

proportion

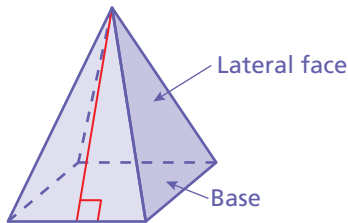An equation stating that two ratios are equivalent.

$$\frac{3}{4} = \frac{12}{16}$$

protractor
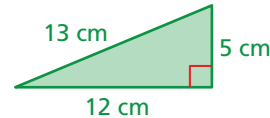
A tool used to measure angles.
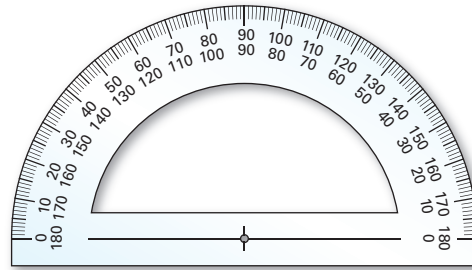
pyramid

A polyhedron that has one base. The other faces are triangles.

Pythagorean Theorem

In any right triangle, the sum of the squares of the lengths of the legs is equal to the square of the length of the hypotenuse.

$$a^2 + b^2 = c^2$$

$$5^2 + 12^2 = 13^2$$

Pythagorean triple

A set of three positive integers a, b, and c, where $a^2 + b^2 = c^2$.

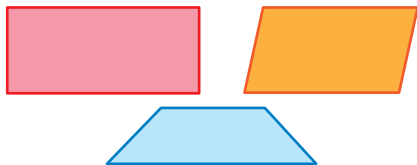Because $3^2 + 4^2 = 5^2$, 3, 4, and 5 is a Pythagorean triple.

quadrants

The four regions created by the intersection of the x-axis and the y-axis in a coordinate plane.
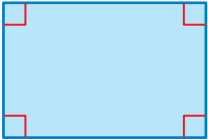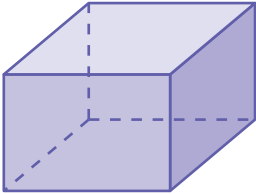
See coordinate plane.

quadrilateral

A polygon with four sides.

quartiles

Used to divide a data set into four equal parts. The median (second quartile) divides the data set into two halves. The median of the lower half is the first quartile. The median of the upper half is the third quartile.
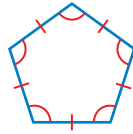
See box-and-whisker plot.

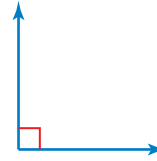|	
quotient The result of a division. The quotient of 10 and -5 is $10 \div (-5)$, or -2.	**Quotient of Powers Property** To divide powers with the same base, subtract their exponents. $$\frac{9^7}{9^3} = 9^{7-3} = 9^4$$
Quotient Property of Square Roots When $x \geq 0$ and $y > 0$, the square root of a quotient is equal to the quotient of the square roots of the numerator and denominator. $$\sqrt{\frac{7}{9}} = \frac{\sqrt{7}}{\sqrt{9}} = \frac{\sqrt{7}}{3}$$	**radical sign** The symbol $\sqrt{}$ which is used to represent a square root. $$\sqrt{25} = 5$$ $$-\sqrt{49} = -7$$ $$\pm\sqrt{100} = \pm 10$$
radicand The number under a radical sign. The radicand of $\sqrt{25}$ is 25.	**radius (of a circle)** The distance from the center of a circle to any point on the circle. *See circumference.*
range The set of all output values of a function. For the ordered pairs (0, 6), (1, 7), (2, 8), and (3, 9), the range is 6, 7, 8, and 9.	**range (of a data set)** The difference between the greatest value and the least value of a data set. The range describes how spread out the data are. The range of the data set 12, 16, 18, 22, 27, 35 is $35 - 12 = 23$.

rate	**ratio**
A ratio of two quantities with different units.	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 $\dfrac{a}{b}$.
You read 3 books every 2 weeks.	4 to 1, 4 : 1, or $\dfrac{4}{1}$

rational number	**ray**
A number that can be written as the ratio of two integers, $\dfrac{a}{b}$, where a and b are integers and $b \neq 0$.	A part of a line that has one endpoint and extends without end in one direction.
$3 = \dfrac{3}{1}$, $\quad -\dfrac{2}{5} = \dfrac{-2}{5}$ $0.25 = \dfrac{1}{4}$, $\quad 1\dfrac{1}{3} = \dfrac{4}{3}$	

real number	**reciprocals**
The set of all rational and irrational numbers.	Two numbers whose product is 1.
$4, -6.5, \pi, \sqrt{14}$	Because $\dfrac{4}{5} \times \dfrac{5}{4} = 1$, $\dfrac{4}{5}$ and $\dfrac{5}{4}$ are reciprocals.

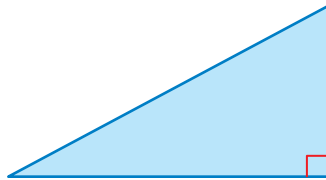| **rectangle**	**rectangular prism**
A parallelogram with four right angles.	A three-dimensional figure that has 6 rectangular sides.

|	
regular polygon A polygon with congruent sides and congruent angles	**right angle** An angle whose measure is 90°.
right triangle A triangle that has one right angle.	**rise** The change in y between two points on a line. *See slope.*
round To approximate a number to a given place value. 132 rounded to the nearest ten is 130.	**run** The change in x between two points on a line. *See slope.*
sales tax An additional amount of money charged on items by governments to raise money. A 6% sales tax on a \$20 item is $\$20 \times 0.06 = \$1.20$.	**scatter plot** A graph that shows the relationship between two data sets using ordered pairs in a coordinate plane. **Study Time and Test Scores**
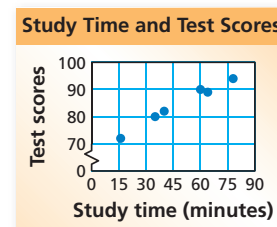
scientific notation

A number is written in scientific notation when it is represented as the product of a factor and a power of 10. The factor must be at least 1 and less than 10.
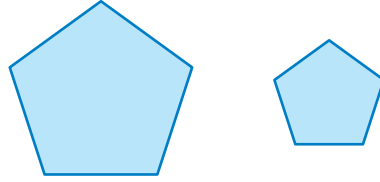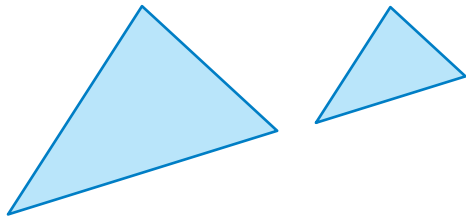
$$8.3 \times 10^4$$

$$4 \times 10^{-3}$$

similar figures

Figures that have the same shape but not necessarily the same size.

Two figures are similar if corresponding side lengths are proportional, and corresponding angles have the same measure.

similar triangles

Triangles that have the same shape but not necessarily the same size.

simple interest

Money paid or earned only on the principal.

Simple interest → ← Annual interest rate (in decimal form)

$$I = Prt$$

Principal ↑ ↑ Time (in years)
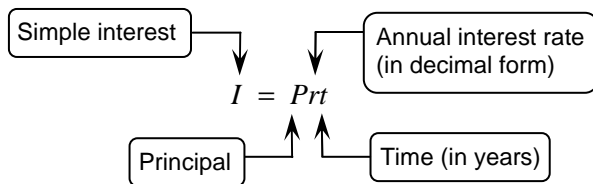
You put $200 into an account. The account earns 5% simple interest per year. The interest earned after 3 years is $200 × 0.05 × 3, or $30. The account balance is $200 + $30 = $230 after 3 years.
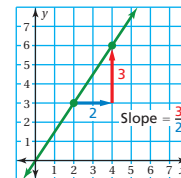
slant height (of a cone)

The distance from the vertex of a cone to any point on the edge of its base.

Slant height, ℓ
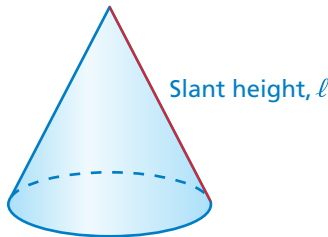
slope

A ratio of the change in y (the rise) to the change in x (the run) between any two points on a line. It is a measure of the steepness of a line.
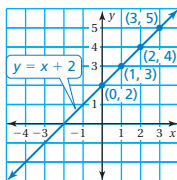
$$\text{slope} = \frac{\text{change in } y}{\text{change in } x} = \frac{\text{rise}}{\text{run}}$$

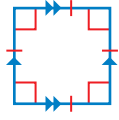Slope $= \frac{3}{2}$

slope-intercept form

An equation written in the form $y = mx + b$.

The slope of the line is m and the y-intercept of the line is b.

The slope is 1 and the y-intercept is 2.

$y = x + 2$
(3, 5)
(2, 4)
(1, 3)
(0, 2)

solid

A three-dimensional figure.

See three-dimensional figure.

solution of a linear equation	solution of a system of linear equations
All of the points on a line.	An ordered pair that makes each equation in a system of linear equations true. *See system of linear equations.*
solution of an equation	**solution of an inequality**
A value that makes an equation true. 6 is the solution of the equation $x - 4 = 2$.	A value that makes an inequality true. A solution of the inequality $x + 3 > -9$ is $x = 2$.
solution set	**square**
The set of all solutions of an inequality.	A parallelogram with four right angles and four sides of equal length.
square root	**square(d)**
A number that when multiplied by itself, equals the given number. The two square roots of 100 are 10 and -10.	A number squared is the number raised to the second power. 5 squared means 5^2, or 25.

standard form

A linear equation written in the form $ax + by = c$, where a and b are not both zero.

$$-2x + 3y = -6$$

stem-and-leaf plot

A type of data display that orders numerical data and shows how they are distributed. Each data value is broken into a stem (digit or digits on the left) and a leaf (digit or digits on the right).

Test Scores

Stem	Leaf
6	6
7	2 7
8	1 1 3 4 4 6 8 8
9	0 0 0 2 7 8
10	0

Key: 9 | 4 = 94 points

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straight angle

An angle whose measure is 180°.

Subtraction Property of Equality

Subtracting the same number from each side of an equation produces an equivalent equation.

$$x + 10 = -12$$
$$\underline{-\ 10 \qquad -\ 10}$$
$$x = -22$$

Subtraction Property of Inequality

If you subtract the same number from each side of an inequality, the inequality remains true.

$$x + 7 > -20$$
$$\underline{-\ 7 \qquad -\ 7}$$
$$x > -27$$

sum

The result when two or more numbers are added.

The sum of -4 and 3 is $-4 + 3$, or -1.

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supplementary angles

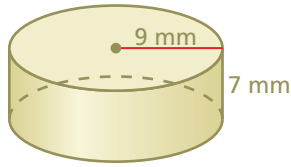Two angles whose measures have a sum of 180˚.

surface area of a prism

The sum of the areas of all the faces of a prism.

$$S = 2\ell w + 2\ell h + 2wh$$
$$= 2(3)(5) + 2(3)(6) + 2(5)(6)$$
$$= 30 + 36 + 60$$
$$= 126 \text{ in.}$$

6 in.

5 in.

3 in.

surface area of a solid

The sum of the areas of the outside surfaces of a solid.

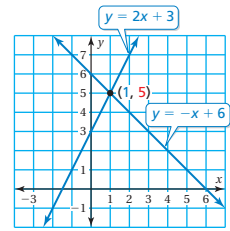$$\text{Surface area} = 2\pi r^2 + 2\pi rh$$
$$\approx 904.32 \text{ mm}^2$$

system of linear equations

A set of two or more linear equations in the same variables.

$$y = 2x + 3$$
$$y = -x + 6$$
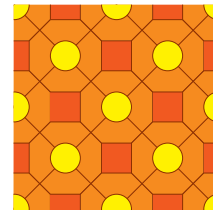
The solution is $(1, 5)$.

term (of a loan)

The amount of time a loan is in effect.

The term of your mortgage is 30 years.

tessellation

A repeating pattern of congruent plane figures that completely covers a plane with no holes or overlaps.
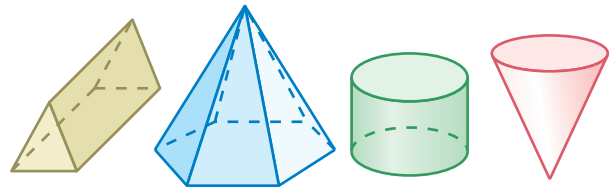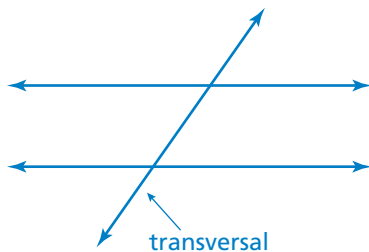

theorem

A rule in mathematics.

The Pythagorean Theorem

three-dimensional figure

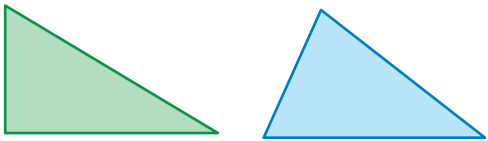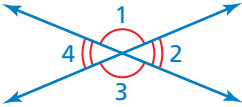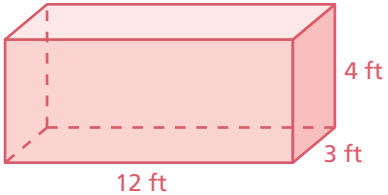A figure that has length, width, and depth; also called a solid.
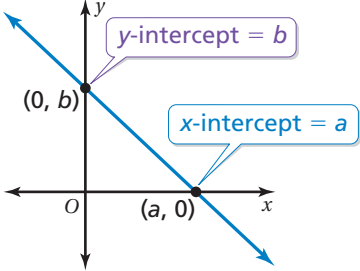

transversal

A line that intersects two or more lines.

transversal

trapezoid

A quadrilateral with exactly one pair of parallel sides.

triangle A polygon with three sides.	**U.S. customary system** System of measurement that contains units for length, capacity, and weight. inches, feet, quarts, gallons, ounces, pounds
variable A symbol, usually a letter, that represents one or more numbers. x is a variable in $2x + 1$.	**variable term** A term that has a variable. In the expression $2x + 8$, the term $2x$ is a variable term.
vertex of a polygon A point at which two sides of a polygon meet. The plural of vertex is vertices. *See polygon.*	**vertical angles** The angles opposite each other when two lines intersect. Vertical angles are congruent.
volume A measure of the amount of space that a three-dimensional figure occupies. Volume is measured in cubic units such as cubic feet $\left(\text{ft}^3\right)$ or cubic meters $\left(\text{m}^3\right)$. 4 ft 3 ft 12 ft Volume $= 12 \cdot 3 \cdot 4 = 144 \text{ ft}^3$	**whole number** The numbers $0, 1, 2, 3, 4, \ldots$

x-axis The horizontal number line in a coordinate plane. *See coordinate plane.*	**x-coordinate** The first coordinate in an ordered pair, which indicates how many units to move to the left or right from the origin. In the ordered pair $(3, 5)$, the *x*-coordinate is 3.
x-intercept The *x*-coordinate of the point where a line crosses the *x*-axis. *Graph showing a line with y-intercept = b at (0, b) and x-intercept = a at (a, 0)*	**y-axis** The vertical number line in a coordinate plane. *See coordinate plane.*
y-coordinate The second coordinate in an ordered pair, which indicates how many units to move up or down from the origin. In the ordered pair $(3, 5)$, the *y*-coordinate is 5.	**y-intercept** The *y*-coordinate of the point where a line crosses the *y*-axis. *See x-intercept.*