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

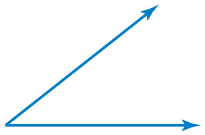
absolute value

The distance between a number and 0 on a number line. The absolute value of a number a is written as $|a|$.

$$|-5| = 5$$
$$|5| = 5$$

acute angle

An angle whose measure is less than 90°.



Addition Property of Equality

Adding the same number to each side of an equation produces an equivalent equation.

$$\begin{aligned} x - 5 &= -1 \\ +5 \quad &\quad +5 \\ x &= 4 \end{aligned}$$

additive inverse

The opposite of a number.

The additive inverse of 8 is -8.

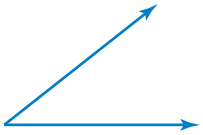
Additive Inverse Property

The sum of an integer and its additive inverse is 0.

$$8 + (-8) = 0$$

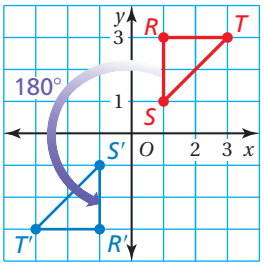
angle

A figure formed by two rays with the same endpoint.



angle of rotation

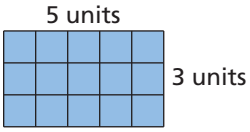
The number of degrees a figure rotates.



$\triangle RST$ has been rotated 180° to $\triangle R'S'T'$.

area

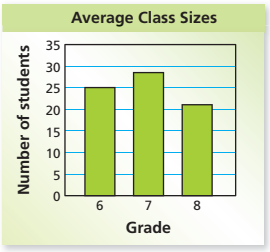
The amount of surface covered by a figure. Area is measured in square units such as square feet $\left(\text{ft}^2\right)$ or square meters $\left(\text{m}^2\right)$.



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

bar graph

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



capacity

The amount a container can hold.

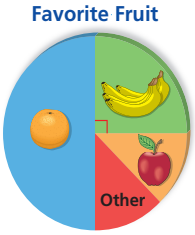
center of rotation

A fixed point about which a figure is rotated.

See rotation.

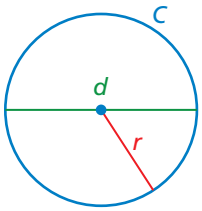
circle graph

Displays data sections of a circle. 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.



composite number

A whole number greater than 1 that has factors other than itself and 1.

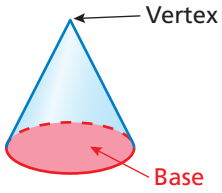
12 is a composite number because the factors of 12 are 1, 2, 3, 4, 6, and 12.

composite solid

A figure that is made up of more than one solid.

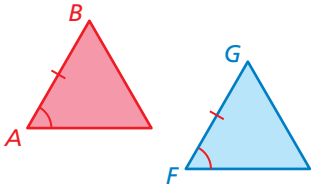
cone

A solid that has one circular base and one vertex.



congruent

Having the same size and shape.

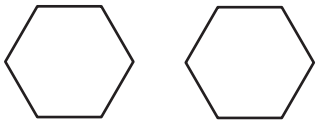


$\angle A$ is congruent to $\angle F$.

Side AB is congruent to side FG.

congruent (figures)

Figures that have exactly the same size and shape.



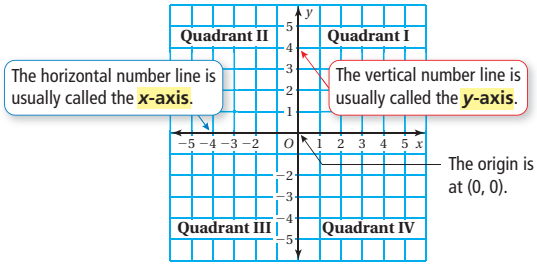
constant term

A term that has a number but no variable.

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

coordinate plane

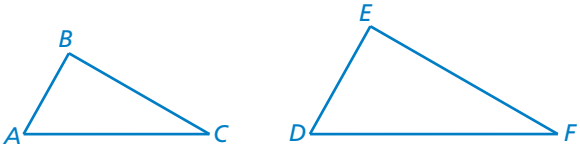
A coordinate plane is formed by the intersection of a horizontal number line, usually called the x-axis, and a vertical number line, usually called the y-axis.



corresponding angles

Matching angles of two similar figures.

$\triangle ABC \sim \triangle DEF$



Corresponding angles: $\angle A$ and $\angle D$

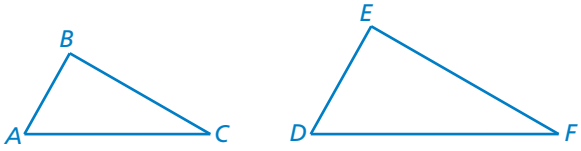
$\angle B$ and $\angle E$

$\angle C$ and $\angle F$

corresponding sides

Matching sides of two similar figures.

$\triangle ABC \sim \triangle DEF$



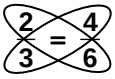
Corresponding sides: side AB and side DE

side BC and side EF

side AC and side DF

cross products

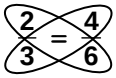
In the proportion $\frac{a}{b} = \frac{c}{d}$, where $b \neq 0$ and $d \neq 0$, the products $a \bullet d$ and $b \bullet c$ are called cross products.



$2 \bullet 6$ and $3 \bullet 4$

Cross Products Property

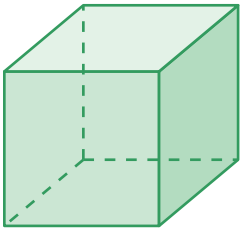
The cross products of a proportion are equal.



$2 \bullet 6 = 3 \bullet 4$

cube

A rectangular prism with 6 congruent square faces.



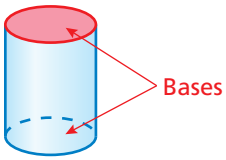
cube(d)

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.



decimal

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

A unit used to measure angles.

90°, 45°, 32°

denominator

The number below the fraction bar in a fraction.

In the fraction $\frac{2}{5}$, the denominator is 5.

dependent events

Two events such that the occurrence of one event affects the likelihood that the other event will occur.

A bag contains 3 red marbles and 4 blue marbles. You randomly draw a marble, do not replace it, then randomly draw another marble. The events "first marble is blue" and "second marble is red" are dependent events.

diameter (of a circle)

The distance across a circle through the center.

See circumference.

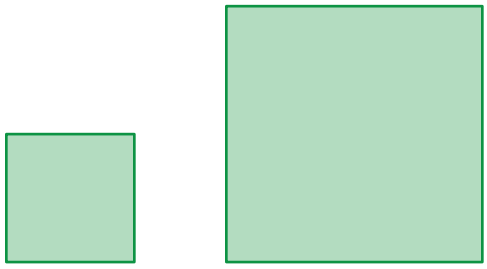
difference

The result when one number is subtracted from another number.

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

dilation

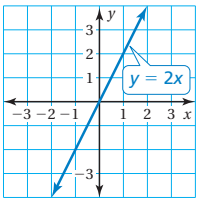
A transformation in which a figure is enlarged or reduced.



direct variation

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.



discount

A decrease in the original price of an item.

The original price for a pair of shoes is $95. The sale price is $65. The discount is $30.

Distributive Property

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.

$$-3y = 18$$
$$\frac{-3y}{-3} = \frac{18}{-3}$$
$$y = -6$$

equation

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

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

equivalent equation

Equations that have the same solution(s).

$2x - 8 = 0$ and $2x = 8$

estimate

To find an approximate solution to a problem.

You can estimate the sum of $98 + 53$ as $100 + 50,$ or 150.

evaluate (an algebraic expression)

Substitute a number for each variable in an algebraic expression. Then use the order of operations to find the value of the numerical expression.

Evaluate $3x + 5$ when $x = 6$.

$$\begin{aligned} 3x + 5 &= 3(6) + 5 \\ &= 18 + 5 \\ &= 23 \end{aligned}$$

event

A collection of one or more favorable outcomes of an experiment.

Flipping heads on a coin.

experiment

An activity with varying results.

Rolling a number cube.

experimental probability

Probability that is based on repeated trials of an experiment.

$$P(\text{event}) = \frac{\text{number of times the even occurs}}{\text{total number of trials}}$$

A basketball player makes 19 baskets in 28 attempts. The experimental probability that the player makes a basket is $\frac{19}{28} = 68\%$.

expression

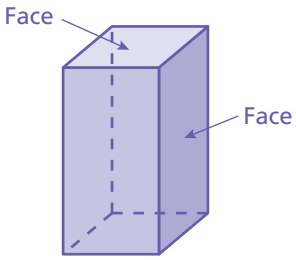
A mathematical phrase containing numbers, operations, and/or variables.

$12 + 6, 18 + 3 \times 4$

$8 + x, 6 \times a - b$

faces of a solid

The polygons that form a solid figure.



factor

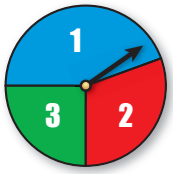
When whole numbers other than zero are multiplied together, each number is a factor of the product.

$2 \times 3 \times 4 = 24$, so 2, 3, and 4 are factors of 24.

fair experiment

An experiment in which all of the possible outcomes are equally likely.

The spinner is equally likely to land on 1 or 2. The spinner is fair.



The spinner is more likely to land on 1 than on either 2 or 3. The spinner is *not* fair.

favorable outcome

Outcomes corresponding to a specified event.

When rolling a number cube, the favorable outcomes for the event "rolling an even number" are 2, 4, and 6.

fraction

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

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

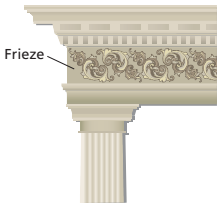
frequency table

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

frieze

A horizontal band that runs at the top of a building. A frieze is often decorated with a design that repeats.

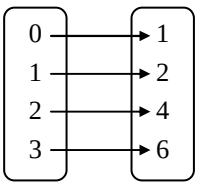


function

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



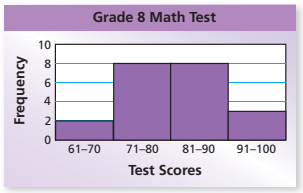
greatest common factor (GCF)

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.

histogram

A bar graph that shows the frequency 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.



image

The new figure formed by a transformation.

See translation, reflection, and rotation.

improper fraction

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

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

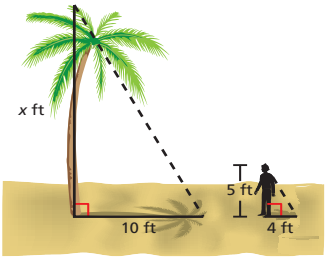
independent events

Two events such that the occurrence of one event does not affect the likelihood that the other event will occur.

You flip a coin and roll a number cube. The events "flipping tails" and "rolling a 4" are independent events

indirect measurement

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



$$\frac{x}{10} = \frac{5}{4}$$

$$10 \bullet \frac{x}{10} = 10 \bullet \frac{5}{4}$$

$$x = 12.5$$

The tree is 12.5 feet tall.

input

A number on which a function operates.

See function.

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.

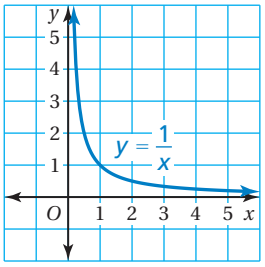
inverse operations

Operations that "undo" each other, such as addition and subtraction or multiplication and division.

inverse variation

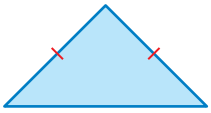
Two quantities x and y show inverse variation when $y = \frac{k}{x}$, where k is a number and $k \neq 0$.

The graph is not a line.



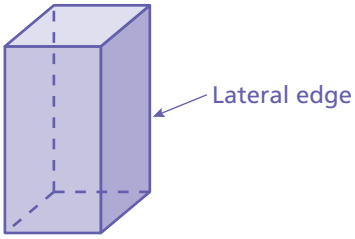
isosceles triangle

A triangle that has at least two congruent sides.



lateral edge of a prism

The segments connecting the corresponding vertices of the bases of a prism.

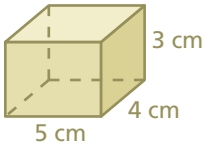


lateral face

Any face or surface that is not a base.

lateral surface area

The surface area of a figure excluding the area of its base(s).



Lateral surface area $= 2(4)(3) + 2(5)(3)$

$= 24 + 30 = 54 \text{ cm}^2$

leaf

Digit or digits on the right of a stem-and-leaf plot.

See stem-and-leaf plot.

least common denominator (LCD)

The least common multiple of the denominators of two or more fractions.

The least common denominator of $\frac{3}{4}$ and $\frac{5}{6}$ is the least common multiple of 4 and 6, or 12.

least common multiple (LCM)

The smallest of the common multiples of two or more nonzero whole numbers.

Multiples of 10: 10, 20, 30, 40, …
Multiples of 15: 15, 30, 45, 60, …

The least common multiple of 10 and 15 is 30.

like terms

Terms that have identical variable parts.

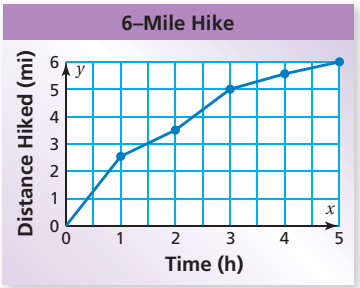
4 and 8, $2x$ and $7x$

line

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

line graph

A type of graph in which points representing data pairs are connected by line segments.



line of reflection

A line that a figure is flipped across to create a mirror image of the original figure.

See reflection.

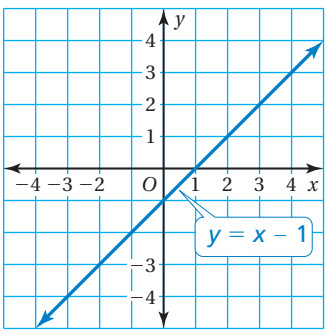
line segment

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

linear function

A function whose graph is a line.

$y = x - 1$



markup

An increase from the original cost to the selling price.

A store buys a hat for \$12 and sells it for \$20. The markup is \$8.

mean

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

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

median

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

Decimal system of measurement, based on powers of 10, that contains units for length, capacity, and mass.

centimeter, meter, liter, kilogram

mixed number

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

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

mode

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.

Multiplication Property of Equality

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

$$\frac{x}{3} = -6$$

$$3 \bullet \frac{x}{3} = 3 \bullet (-6)$$

$$x = -18$$

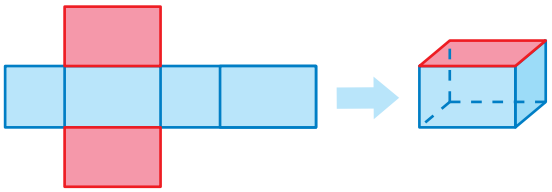
negative number

A number less than 0.

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

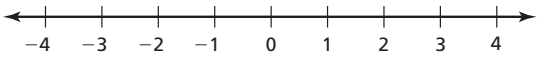
net

A two-dimensional representation of a solid.



number line

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



numerator

The number above the fraction bar in a fraction.

In the fraction $\frac{2}{5}$, the numerator is 2.

numerical expression

An expression that contains only numbers and operations.

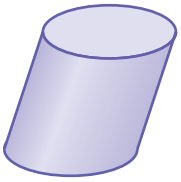
$12 + 6, 18 + 3 \times 4$

oblique cone

A cone that *does not* have its vertex aligned directly above the center of its base.

oblique cylinder

A cylinder that *does not* have one base aligned directly above the other.



obtuse angle

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

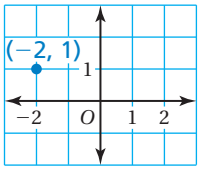
opposites

Two numbers that are the same distance from 0, but on opposite sides of 0.

-3 and 3 are opposites.

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.

outcome

A possible result of an experiment.

The outcomes of flipping a coin are heads and tails.

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.

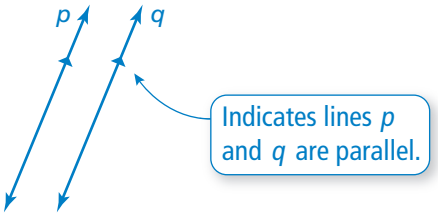
output

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

See function.

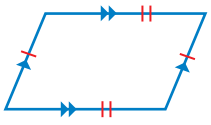
parallel (lines)

Two lines in the same plane that do not intersect.



parallelogram

A quadrilateral with two pairs of parallel sides.



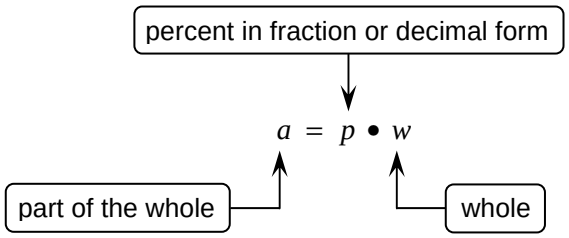
percent

A ratio whose denominator is 100. The symbol for percent is %.

$$40\% = \frac{40}{100} = 0.4$$

percent equation

To represent "a is what percent of w," use the equation $a = p \bullet w$.



$15 = 0.5 \bullet 30$

percent of change

The percent that a quantity changes from the original amount.

$$\text{percent of change} = \frac{\text{amount of change}}{\text{original amount}}$$

The percent of change from 20 to 25 is:

$$\frac{25 - 20}{20} = \frac{5}{20} = 25\%$$

percent of decrease

The percent of change when the original amount decreases.

$$\text{percent of decrease} = \frac{\text{original amount} - \text{new amount}}{\text{original amount}}$$

The price of a shirt decreases from \$20 to \$10.

The percent of decrease is $\frac{20 - 10}{20}$, or 50%.

percent of increase

The percent of change when the original amount increases.

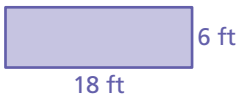
$$\text{percent of increase} = \frac{\text{new amount} - \text{original amount}}{\text{original amount}}$$

The price of a shirt increases from \$20 to \$30.

The percent of increase is $\frac{30 - 20}{20}$, or 50%.

perimeter

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



Perimeter $= 18 + 6 + 18 + 6 = 48$ ft

pi (π)

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

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

place value

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

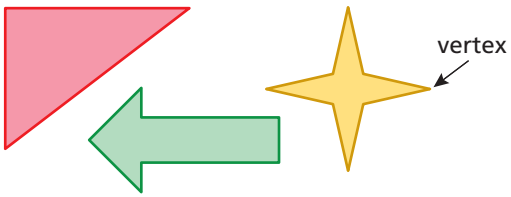
In 521, 5 is in the hundreds place and has a value of 500.

point

A position in space represented with a dot.

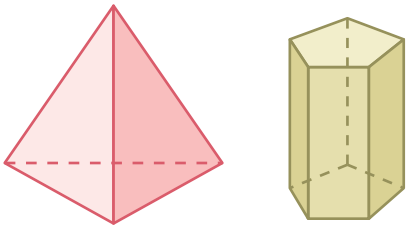
polygon

A closed plane figure made up of three or more line segments that intersect only at their endpoints.



polyhedron

A three-dimensional figure whose faces are all polygons.



population

An entire group of people or objects.

All of the students in a school are a population. All of the students in a class are a sample of that population.

positive number

A number greater than 0.

0.5, 2, 100

power

A product formed from repeated multiplication by the same number or expression. A power consists of a base and an exponent.

$$2^4 = 2 \bullet 2 \bullet 2 \bullet 2 = 16$$

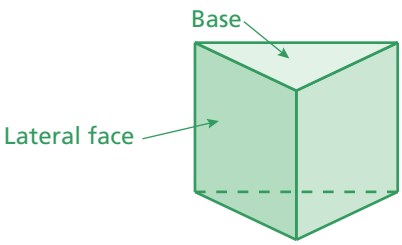
principal

An amount of money borrowed or deposited.

See simple interest.

prism

A polyhedron that has two parallel, congruent bases. The other faces are parallelograms.



probability

A number from 0 to 1 that measures the likelihood that an event will occur.

See experimental probability and theoretical probability.

product

The result when two or more numbers are multiplied.

The product of 4 and 3 is 4×3, or 12.

proportion

An equation stating that two ratios are equivalent.

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

proportional

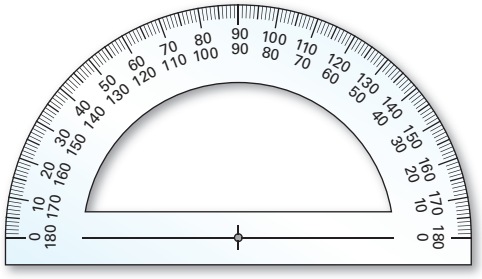
Two quantities that form a proportion are proportional.

Because $\frac{3}{4}$ and $\frac{12}{16}$ form a proportion,

$\frac{3}{4}$ and $\frac{12}{16}$ are proportional.

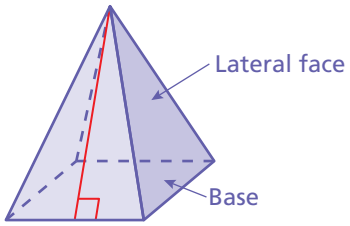
protractor

A tool used to measure angles.



pyramid

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



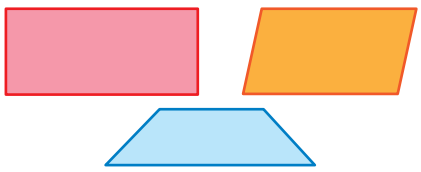
quadrant

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.



quotient

The result of a division.

The quotient of 10 and 5 is $10 \div 5$, or 2.

radius (of a circle)

The distance from the center of a circle to any point on the circle.

See circumference.

random sample

A sample in which each member of the population has an equal chance of being selected.

For the population at a school, a random sample would be every 10th student that arrives at school in the morning.

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

A ratio of two quantities with different units.

You read 3 books every 2 weeks.

ratio

A comparison of two quantities using division. The ratio of a to b $(\text{where } b \neq 0)$ can be written as a to b, $a : b$, or $\frac{a}{b}$.

4 to 1, 4 : 1, or $\frac{4}{1}$

rational number

A number that can be written as the ratio of two integers, $\frac{a}{b}$, where a and b are integers and $b \neq 0$.

$3 = \frac{3}{1}$, $-\frac{2}{5} = \frac{-2}{5}$

$0.25 = \frac{1}{4}$, $1\frac{1}{3} = \frac{4}{3}$

ray

A part of a line that has one endpoint and extends without end in one direction.

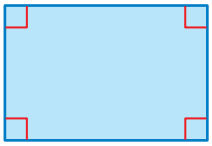
reciprocals

Two numbers whose product is 1.

Because $\frac{4}{5} \times \frac{5}{4} = 1$, $\frac{4}{5}$ and $\frac{5}{4}$ are reciprocals.

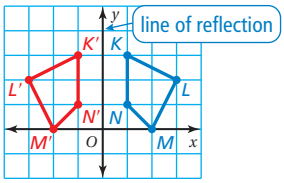
rectangle

A parallelogram with four right angles.



reflection

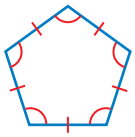
A transformation in which a figure flips over a line called the line of reflection. A reflection creates a mirror image of the original figure.



$K'L'M'N'$ is a reflection of $KLMN$ over the y-axis.

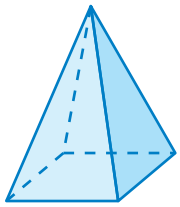
regular polygon

A polygon with congruent sides and congruent angles.



regular pyramid

A pyramid whose base is a regular polygon.



remainder

If a divisor does not divide a dividend evenly, the remainder is the whole number left over after the division.

$$\begin{array}{r} 4 \\ 7\overline{)30} \\ \underline{28} \\ 2 \end{array}$$

R 2 The remainder is 2.

repeating decimal

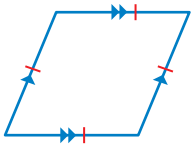
A decimal that has a pattern that repeats.

$0.555.. = 0.\overline{5}$

$1.727272... = 1.\overline{72}$

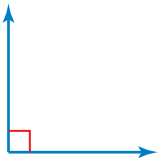
rhombus

A parallelogram with four sides of equal length.



right angle

An angle whose measure is $90°$.



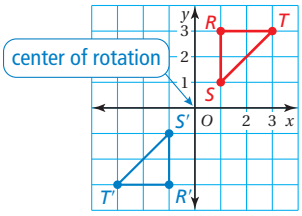
rise

The change in y between two points on a line.

See slope.

rotation

A transformation in which a figure turns around a point called the center of rotation.



$\triangle RST$ has been rotated about the origin O to $\triangle R'S'T'$.

rotational symmetry

A figure has rotational symmetry if a turn of 180° or less produces an image that fits exactly on the original figure.

The figure has $60°$ rotational symmetry.

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 $\$20 \times 0.06 = \$1.20$.

sample

A part of a population.

See population.

scale

A ratio that compares the measurements of a drawing or model to the actual measurements.

12 cm : 1 cm

2 in. : 15 ft

scale drawing

A proportional two-dimensional drawing of an object.

A blueprint or a map

scale factor

A scale without units.

See ratio.

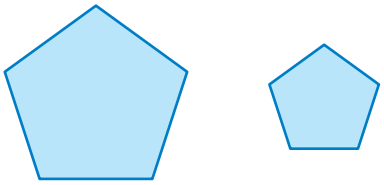
scale model

A proportional three-dimensional model of an object.

similar figures

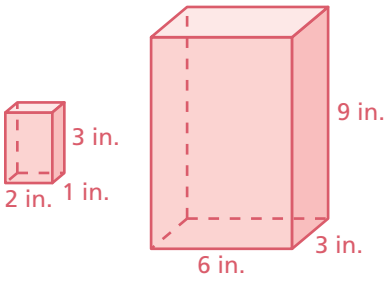
Figures that have the same shape but not necessarily the same size.

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



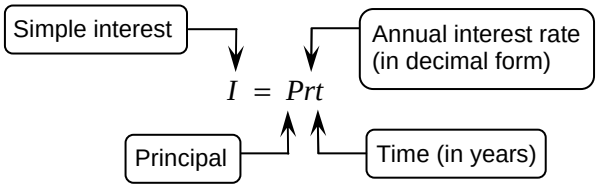
similar solids

Solids of the same type that have proportional corresponding linear measures.



simple interest

Money paid or earned only on the principal.



You put \$200 into an account. The account earns 5% simple interest per year. The interest earned after 3 years is $\$200 \times 0.05 \times 3$, or \$30. The account balance is $\$200 + \$30 = \$230$ after 3 years.

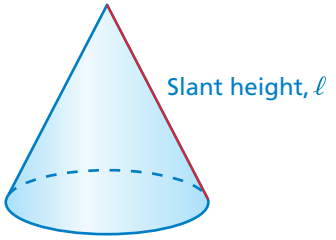
simplest form of a fraction

A fraction is in simplest form if its numerator and denominator have a greatest common factor (GCF) of 1.

The simplest form of the fraction $\frac{10}{15}$ is $\frac{2}{3}$.

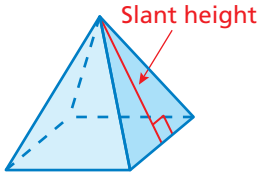
slant height (of a cone)

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



slant height (of a pyramid)

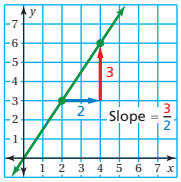
The height of each triangular face of a pyramid.



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.

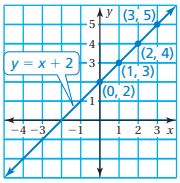
$$\text{slope} = \frac{\text{change in } y}{\text{change in } x} = \frac{\text{rise}}{\text{run}}$$



slope-intercept form

A linear function 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.



solid

A three-dimensional figure.

See three-dimensional figure.

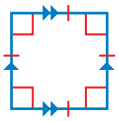
solution (of an equation)

A value that makes an equation true.

6 is the solution of the equation $x - 4 = 2$.

square

A parallelogram with four right angles and four sides of equal length.



square(d)

A number squared is the number raised to the second power.

5 squared means 5^2, or 25.

stem

Digit or digits on the left of a stem-and-leaf plot.

See stem-and-leaf plot.

stem-and-leaf plot

A type of data display that uses the digits of data values to organize a data set. 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

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.

$$\begin{aligned} w + 5 &= 25 \\ -5 \quad &\quad -5 \\ x &= 20 \end{aligned}$$

sum

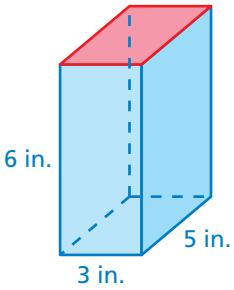
The result when two or more numbers are added.

The sum of 4 and 3 is $4 + 3$, or 7.

surface area (of a prism)

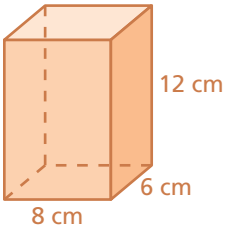
The sum of the areas of all the faces of a prism.

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



surface area of a polyhedron

The sum of the areas of the faces of a polyhedron.



$$\begin{aligned} \text{Surface area} &= 2(8)(12) + 2(8)(6) + 2(12)(6) \\ &= 432 \text{ cm}^2 \end{aligned}$$

terminating decimal

A decimal that ends.

1.5, 2.58, −5.605

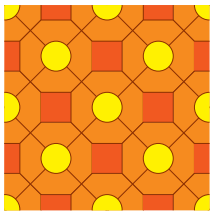
terms

The parts of an expression that are added together.

The terms of $4x + 7$ are $4x$ and 7.

tessellation

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



theoretical probability

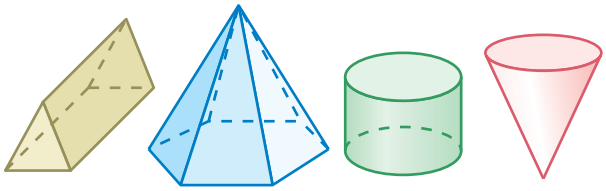
The ratio of the number of favorable outcomes to the number of possible outcomes when all possible outcomes are equally likely.

$$P(\text{event}) = \frac{\text{number of favorable outcomes}}{\text{number of possible outcomes}}$$

When rolling a number cube, the theoretical probability of rolling a 4 is $\frac{1}{6}$.

three-dimensional figure

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



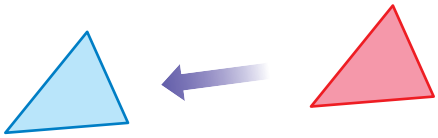
transformation

Changing a figure into another figure.

See translation, reflection, and rotation.

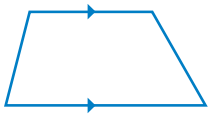
translation

A transformation in which a figure slides but does not turn. Every point of the figure moves the same distance and in the same direction.



trapezoid

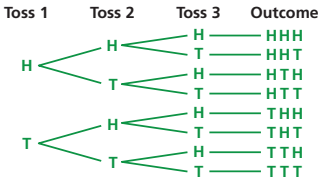
A quadrilateral with exactly one pair of parallel sides.



tree diagram

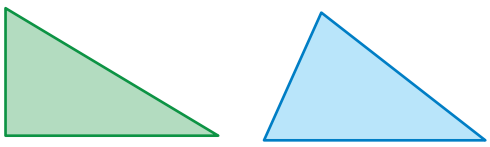
A branching diagram that shows all possible outcomes in a probability experiment.

All possible outcomes of tossing a coin three times.



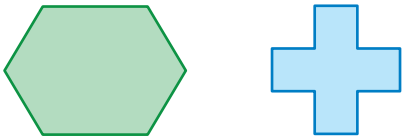
triangle

A polygon with three sides.



two-dimensional figure

A figure that has only length and width.



U.S. customary system

System of measurement that contains units for length, capacity, and weight.

inches, feet, quarts, gallons, ounces, pounds

unit rate

A rate with a denominator of 1.

The speed limit is 65 miles per hour.

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.

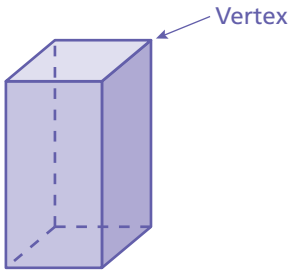
vertex of a polygon

A point at which two sides of a polygon meet. The plural of vertex is vertices.

See polygon.

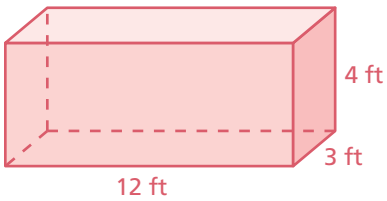
vertex of a solid

A point where the edges of a solid meet. The plural of vertex is vertices.



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 $\left(\text{m}^3\right)$.



Volume $= 12 \bullet 3 \bullet 4 = 144 \text{ ft}^3$

whole numbers 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. In the ordered pair $(3, 5)$, the *x*-coordinate is 3.	***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. 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 slope-intercept form.*