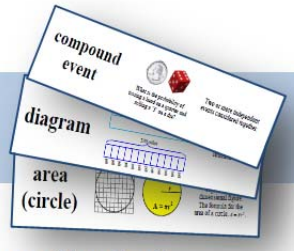
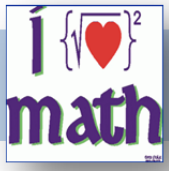
Vocabulary Cards and Word Walls



- The vocabulary cards in this file match the Common Core Georgia Performance Standards.
- The cards are arranged alphabetically.
- Each card has three sections.
  - **Section 1** is only the word. This is to be used as a visual aid in spelling and pronunciation. It is also used when students are writing their own "kid-friendly" definition and drawing their own graphic.
  - **Section 2** has the word and a graphic. This graphic is available to be used as a model by the teacher.
  - **Section 3** has the word, a graphic, and a definition. This is to be used for the Word Wall in the classroom. *(See ideas for everyday use of a Word Wall below.)*
- These cards are designed to help all students with math content vocabulary, including ELL, REACH, special education, and regular education students.

Ideas for everyday use of a Word Wall to develop vocabulary knowledge and fluency by the students



- Give 3 cloze sentences for student to fill in with words from Word Wall (for example, *We walked around the _____ of the school.*)
- Have students write own sentences with words from the Word Wall.
- Have students share three sentences written by their cooperative group on an overhead or document camera.
- Have students share examples of hearing, seeing, or using a word from the Word Wall from their personal lives.
- Make a game by giving a definition for a word and students race to write the word on the board.
- Have students make a connection between pairs of words to help memory. Ask students to tell the two words that they think go together or are connected in some way and to justify their reasoning.
- Give a clue about a word and then ask students to find the word on the wall that goes with the clue (for example, *This word names a polygon with five sides.* … pentagon)
- Select a Word Wall word and ask students to work with a partner to create a quick web of all the words they can think of that go with that word.
- Say a sentence, but leave out a word (from the wall). Have students guess which word belongs in the sentence.
- Scramble the letters in a word. Give students a clue to its meaning and see if they can unscramble the word.
- Share a topic with the class (e.g., multiplication) and ask students to find all of the words on the wall that connect to the topic.
- Make a picture or photo book using the Word Wall words using a scrapbook format, PowerPoint, or video.
- Write a story, poem, paragraph or letter including a set number of words from the Word Wall.

Source: Granite School District (Utah) Math Department

Bibliography of Definition Sources:

- *Algebra to Go*, Great Source, 2000. ISBN 0-669-46151-8
- *Math on Call*, Great Source, 2004. ISBN-13: 978-0-669-50819-2
- *Math at Hand*, Great Source, 1999. ISBN 0-669-46922
- *Math to Know*, Great Source, 2000. ISBN 0-669-47153-4
- *Illustrated Dictionary of Math*, Usborne Publishing Ltd., 2003. ISBN 0-7945-0662-3
- *Math Dictionary*, Eula Ewing Monroe, Boyds Mills Press, 2006. ISBN-13: 978-1-59078-413-6
- Student Reference Books, *Everyday Mathematics*, 2007.
- Houghton-Mifflin eGlossary, http://www.eduplace.com
- Interactive Math Dictionary, http://www.amathsdictionaryforkids.com

absolute value

absolute value

$$|-5| = 5$$

absolute value

$$|-5| = 5$$

The distance of a number from zero on the number line. Always positive.

acute triangle

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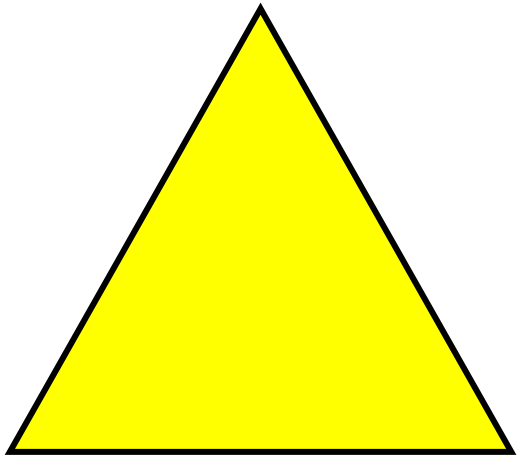
acute triangle



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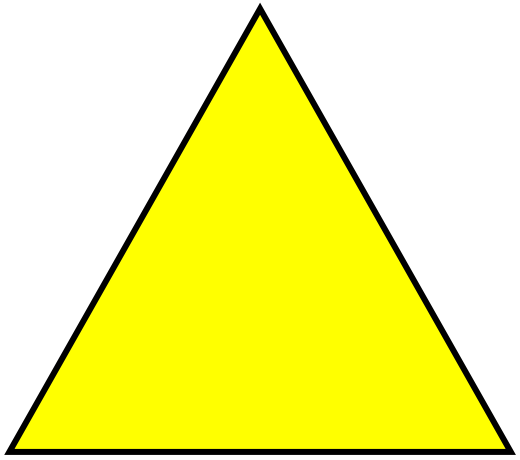
acute triangle



A triangle with no angle measuring 90º or more.

additive inverse

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additive inverse

$+3 + -3 = 0$

$+3$ is the additive inverse, or opposite, of -3
-3 is the additive inverse, or opposite, of $+3$

---

additive inverse

$+3 + -3 = 0$

$+3$ is the additive inverse, or opposite, of -3
-3 is the additive inverse, or opposite, of $+3$

A number that is the same distance from 0 on the number line, but in the opposite direction

adjacent angle

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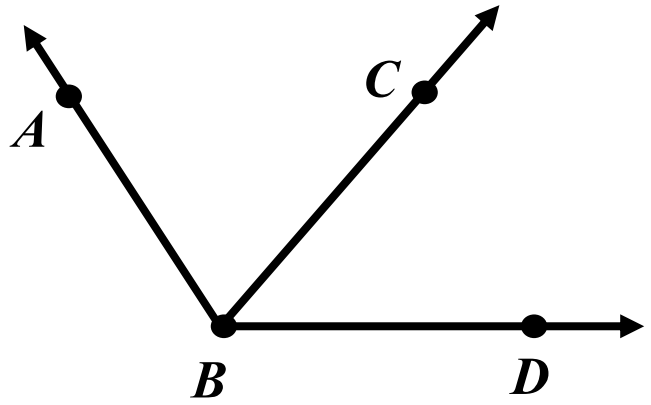
adjacent angle



$\angle ABC$ is adjacent to $\angle CBD$.

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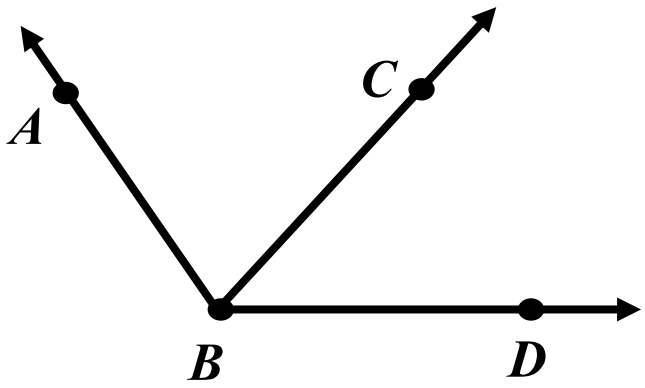
adjacent angle



$\angle ABC$ is adjacent to $\angle CBD$.

Two angles in a plane that have a common vertex and a common side. They do not have any common interior points. In other words, they do not share any "inside space."

area

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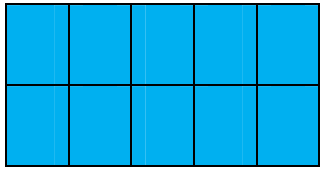
area

2 rows of 5 = 10 square units
or
2 x 5 = 10 square units



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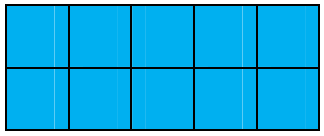
area

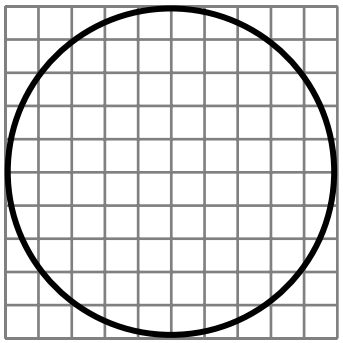
2 rows of 5 = 10 square units
or
2 x 5 = 10 square units

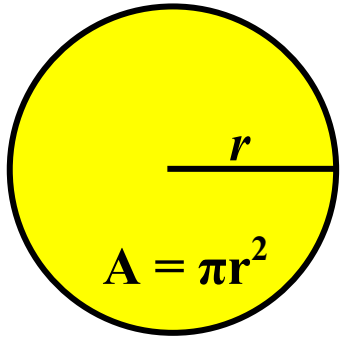


The measure, in square units, of the interior region of a 2-dimensional figure or the surface of a 3-dimensional figure.

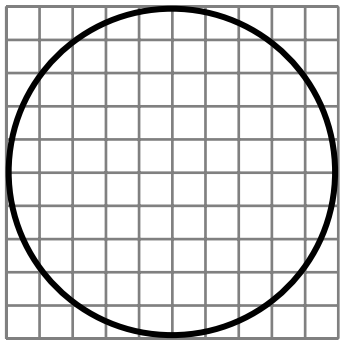
area (circle)

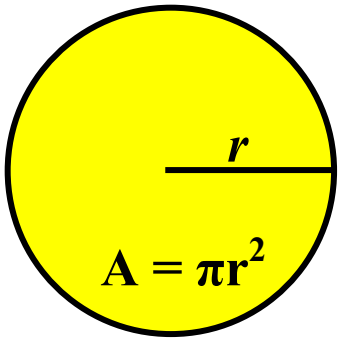
area (circle)





area (circle)





The measure, in square units, of the interior region of a 2-dimensional figure. The formula for the area of a circle, $A = \pi r^2$.

area
(regular polygon)

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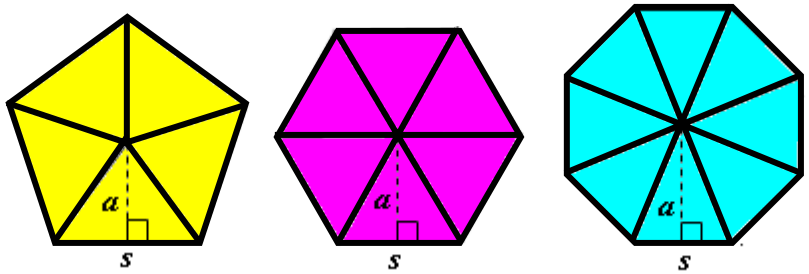
area
(regular polygon)



$$A = \frac{1}{2}aP \text{ or } A = \frac{1}{2}a \bullet n \bullet s$$

a = apothem
s = side length
P = perimeter
n = number of sides

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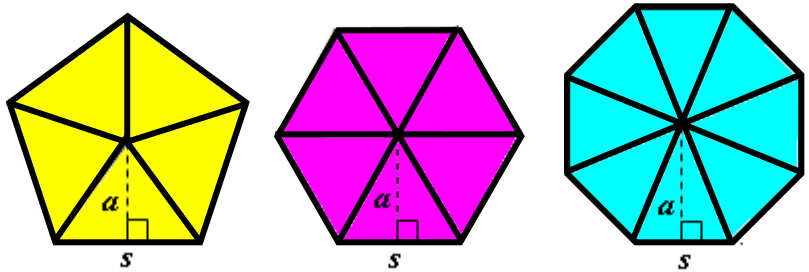
area
(regular polygon)



$$A = \frac{1}{2}aP \text{ or } A = \frac{1}{2}a \bullet n \bullet s$$

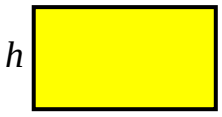
a = apothem
s = side length
P = perimeter
n = number of sides

The area of a polygon is the measurement of the 2-dimensional region enclosed by the polygon.

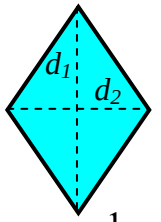
area (quadrilateral)

area (quadrilateral)

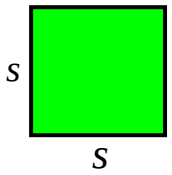
rectangle : $A = bh$



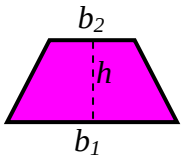
rhombus or kite : $A = \frac{1}{2} d_1 d_2$



square : $A = s^2$

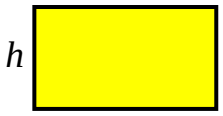


trapezoid : $A = \frac{1}{2}(b_1 + b_2)h$

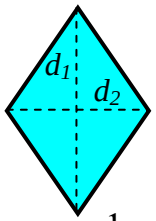


area (quadrilateral)

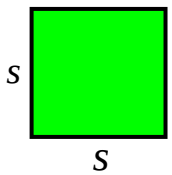
rectangle : $A = bh$



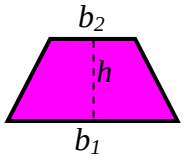
rhombus or kite : $A = \frac{1}{2} d_1 d_2$



square : $A = s^2$



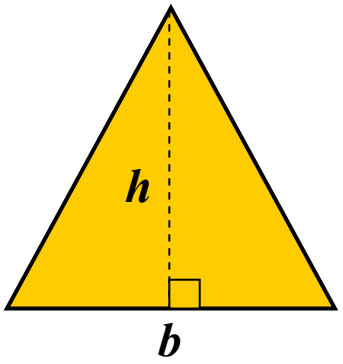
trapezoid : $A = \frac{1}{2}(b_1 + b_2)h$



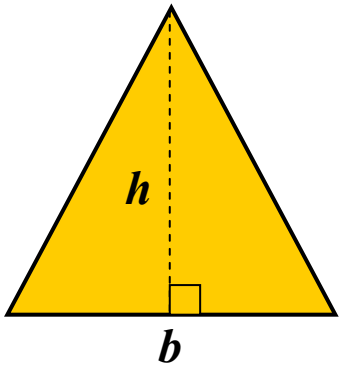
Area is the measurement of the 2-dimensional region enclosed by the quadrilateral.

area (triangle)

area (triangle)



area (triangle)



The area of a triangle is

$$A = \frac{1}{2}bh,$$

where b = the base and
h = the vertical height.

axis

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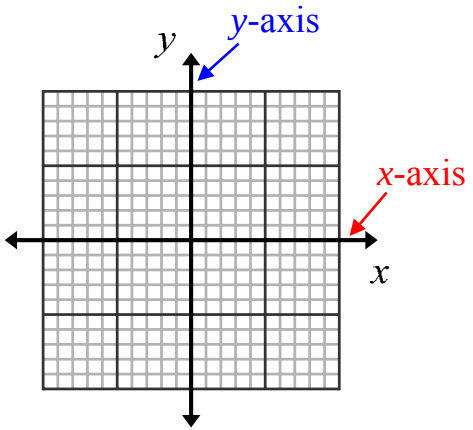
axis



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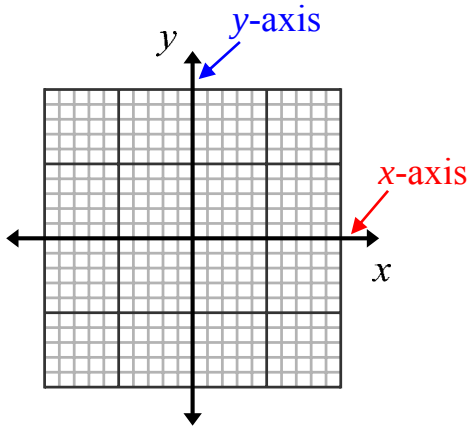
axis



A reference line from which distances or angles are measured in a coordinate grid. (plural – axes)

circumference

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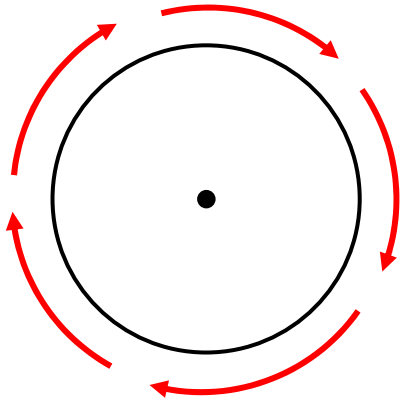
circumference



$C = \pi d$ or $C = 2\pi r$

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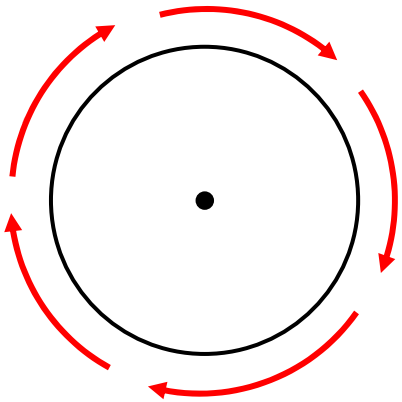
circumference



$C = \pi d$ or $C = 2\pi r$

The distance around a circle, which equals a little more than three times its diameter.

coefficient

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coefficient

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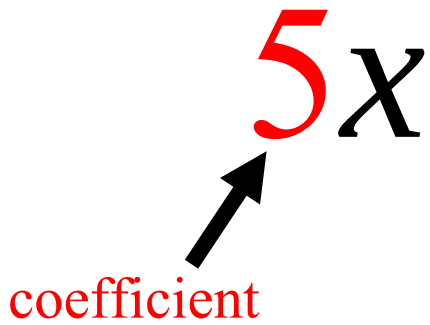
coefficient



A numerical factor in a term of an algebraic expression.

commissions

commissions

Mr. Bennie receives a 30% commission on each car that he sells.

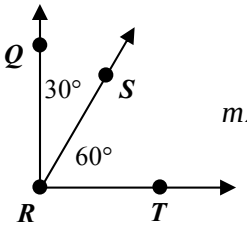
commissions

Mr. Bennie receives a 30% commission on each car that he sells.

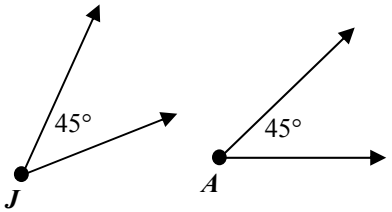
A fee charged by a broker or agent for his/her service in facilitating a transaction.

complementary angles

complementary angles

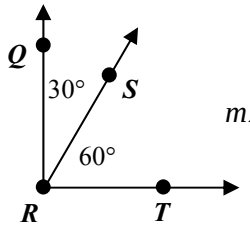


$m\angle QRS + m\angle SRT = 90^\circ$

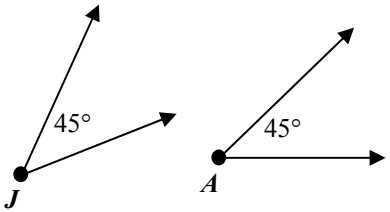


$m\angle J + m\angle A = 90^\circ$

complementary angles



$m\angle QRS + m\angle SRT = 90^\circ$



$m\angle J + m\angle A = 90^\circ$

Two angles are complementary if they add up to 90° (right angle). They don't have to be next to each other.

compound event

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compound event

What is the probability of tossing a head on a quarter and rolling a ‘3’ on a die?

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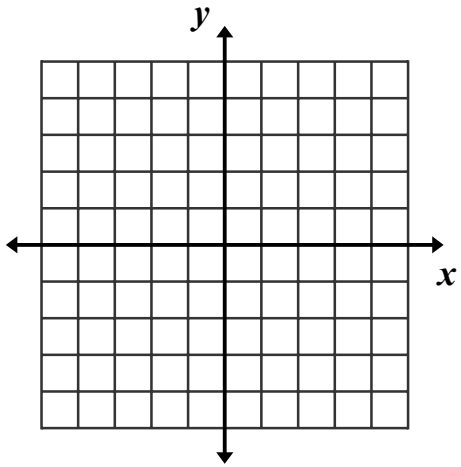
compound event

What is the probability of tossing a head on a quarter and rolling a ‘3’ on a die?

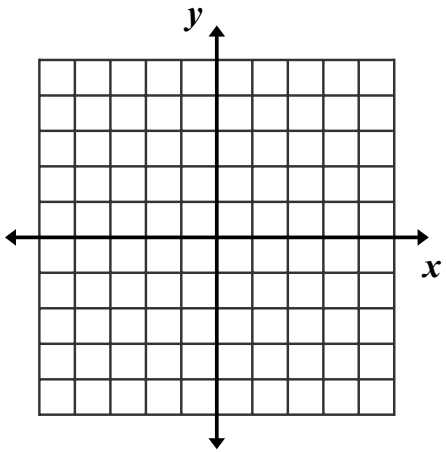
Two or more independent events considered together.

coordinate plane

coordinate plane



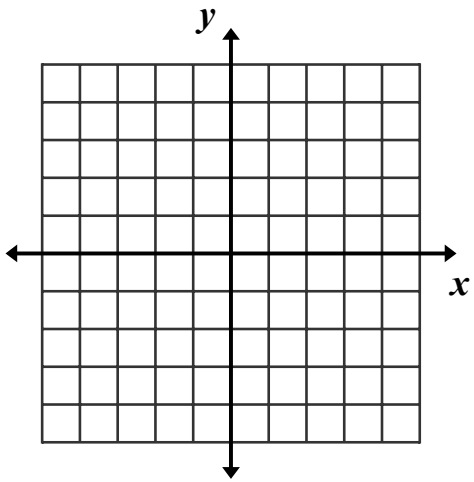
coordinate plane



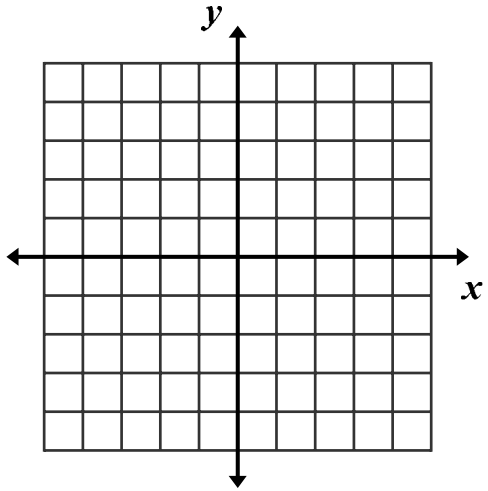
A 2-dimensional system in which the coordinates of a point are its distances from two intersecting, usually perpendicular, straight lines called axes. (Also called coordinate *grid* or coordinate *system*.)

coordinate system

coordinate system



coordinate system



Also known as a coordinate grid. A 2-dimensional system in which the coordinates of a point are its distances from two intersecting, usually perpendicular, straight lines called axes.

coordinates

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coordinates $(3, -5)$

$(x \quad , \quad y)$

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coordinates $(3, -5)$

$(x \quad , \quad y)$

An ordered pair of numbers that identify a point on a coordinate plane.

cube

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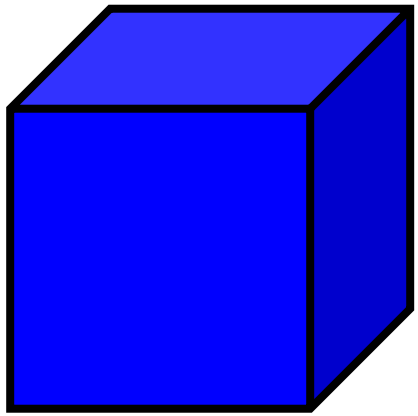
cube



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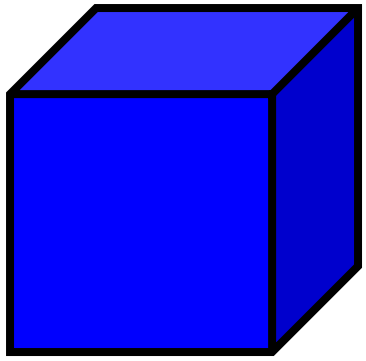
cube



A three-dimensional shape with six square faces.

data

data

Number of School Carnival Tickets Sold	
Kindergarten	22
1st Grade	15
2nd Grade	34
3rd Grade	9
4th Grade	16
5th Grade	29
6th Grade	11

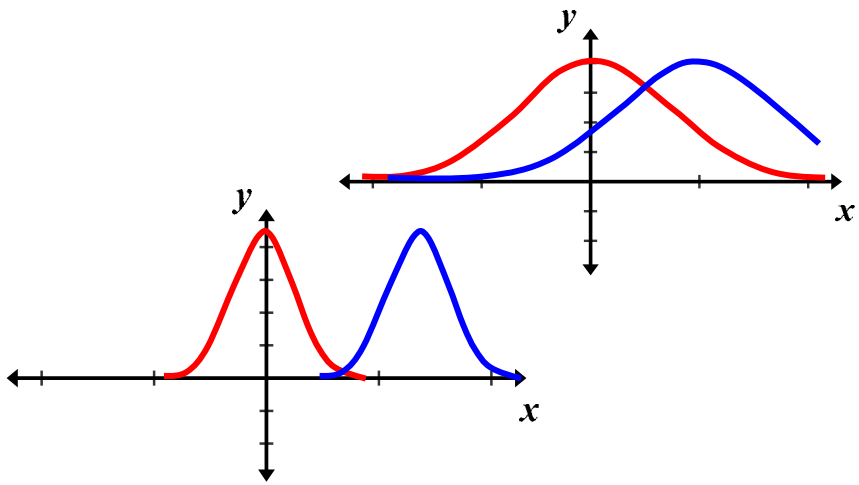
data

Number of School Carnival Tickets Sold	
Kindergarten	22
1st Grade	15
2nd Grade	34
3rd Grade	9
4th Grade	16
5th Grade	29
6th Grade	11

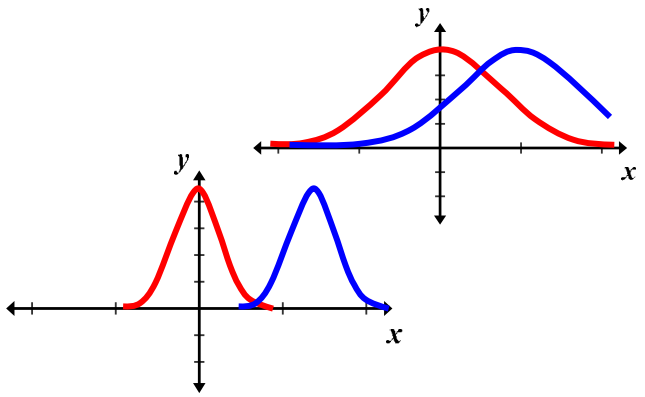
Information, especially numerical information. Usually organized for analysis.

degree of visual overlap

degree of visual overlap



degree of visual overlap



Describes the separation (or lack of separation) between two distributions.

diagram

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diagram

A car travels 300 miles on 12 gallons of gas.

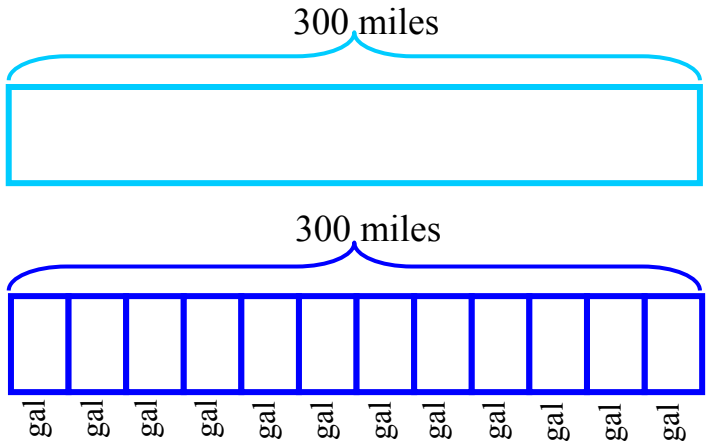

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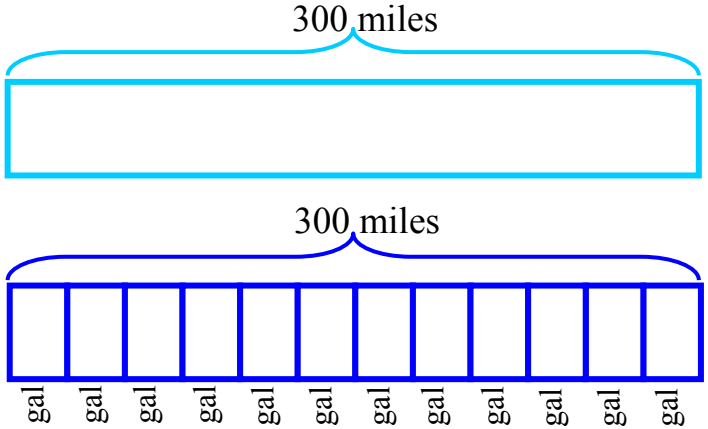
diagram

A car travels 300 miles on 12 gallons of gas.



A drawing that represents a mathematical situation.

Distributive Property

Distributive Property

Example:

$5(x + 8) = (5 \cdot x) + (5 \cdot 8)$

Distributive Property

Example:

$5(x + 8) = (5 \cdot x) + (5 \cdot 8)$

$a \cdot (b + c) = (a \cdot b) + (a \cdot c)$ and
$a \cdot (b - c) = (a \cdot b) - (a \cdot c)$,
where a, b, and c stand for any real numbers.

equation

---

equation $9x + 3 = 4x - 7$

---

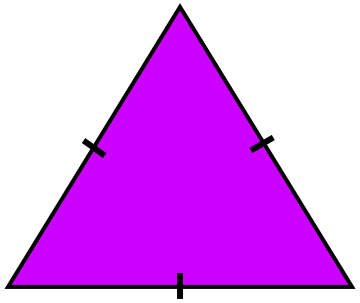
equation $9x + 3 = 4x - 7$

A statement that shows two mathematical expressions are equal.

equilateral triangle

---

equilateral triangle



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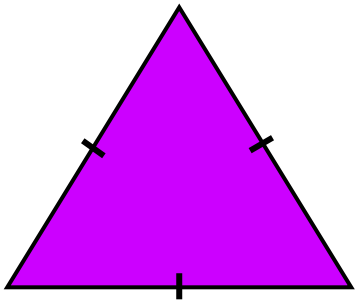
equilateral triangle

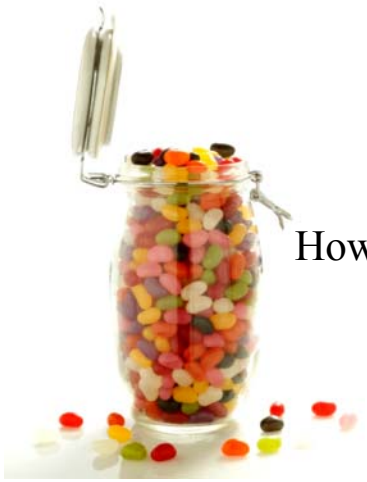


A triangle whose sides are all the same length.

estimate

---

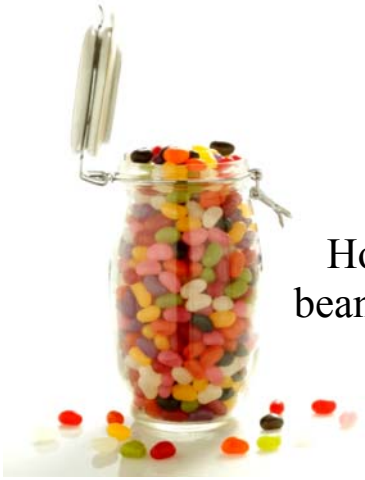
estimate



How many jelly beans are in the jar?

---

estimate



How many jelly beans are in the jar?

To find a number close to an exact amount; an estimate tells *about* how much or *about* how many.

evaluate

---

evaluate

$42 - 13 = n$

$n = 29$

---

evaluate

$42 - 13 = n$

$n = 29$

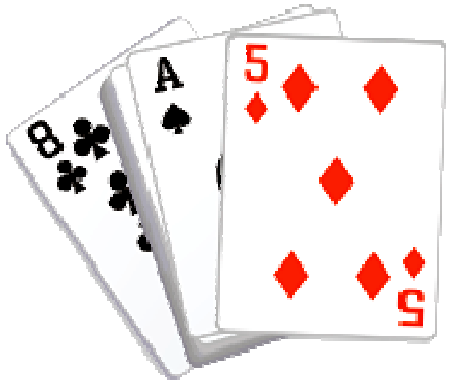
To find the value of a mathematical expression.

event

event

What is the probability of drawing a five of diamonds out of a set of playing cards?

$$\mathbf{P(5\ of\ diamonds) = \frac{1}{52}}$$



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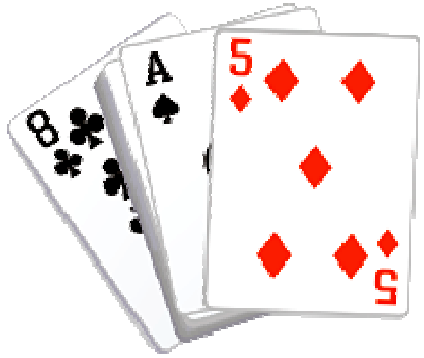


A set of outcomes to which a probability is assigned.

expression

---

expression $5x + 3$

---

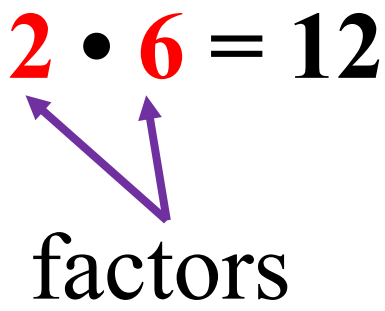
expression $5x + 3$

A variable or combination of variables, numbers, and symbols that represents a mathematical relationship.

factor

---

factor



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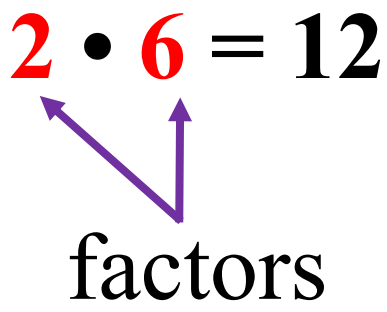
factor



An integer that divides evenly into another.

frequency

frequency

Spelling Test

Score	Tally	Frequency
1	/	1
2	/	1
3	///	3
4	/	1
5	////	4
6	~~////~~	5
7	~~////~~ /	6
8	~~////~~	5
9	///	3
10	/	1

frequency

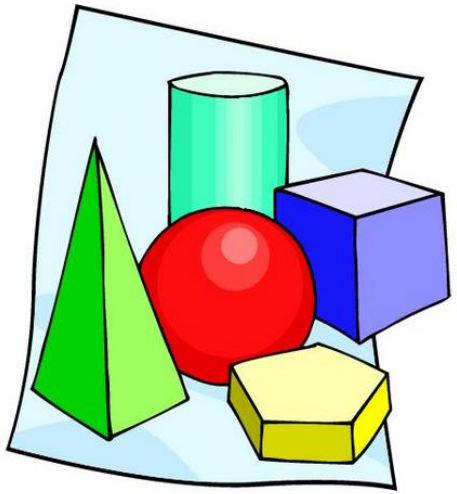
Spelling Test

Score	Tally	Frequency
1	/	1
2	/	1
3	///	3
4	/	1
5	////	4
6	~~////~~	5
7	~~////~~ /	6
8	~~////~~	5
9	///	3
10	/	1

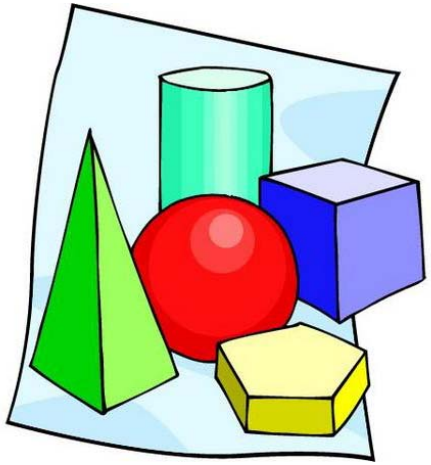
The number of times an event occurs within a specific time period.

geometric figure

geometric figure



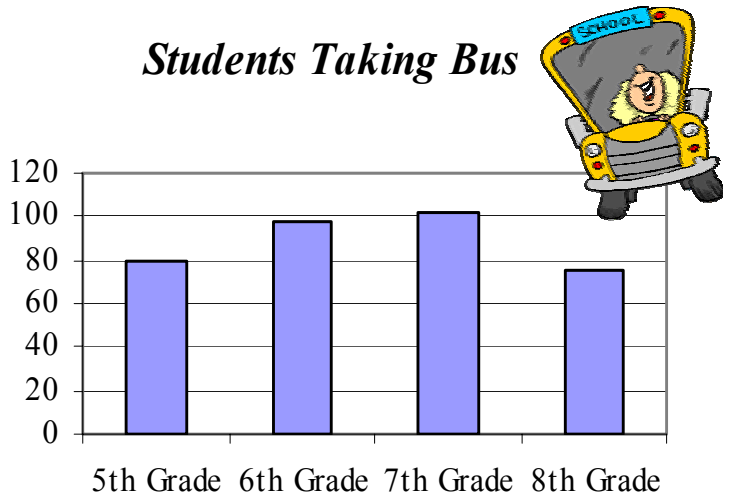
geometric figure



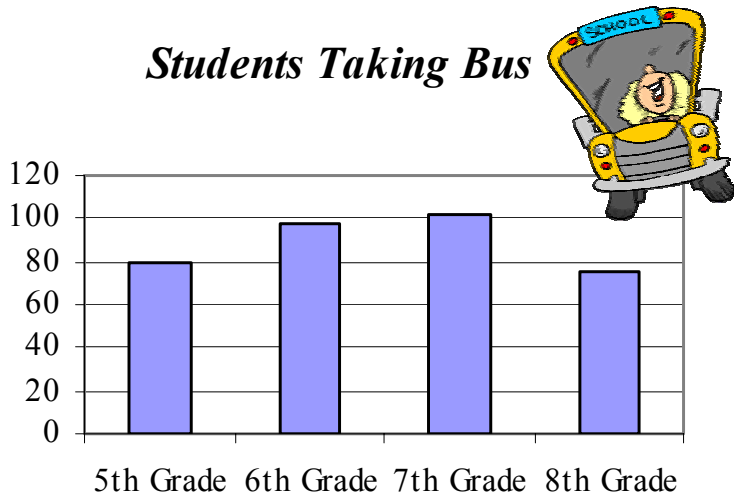
Any combination of points, lines, planes, or curves in two or three dimensions.

graph

graph



graph



A pictorial device used to show a numerical relationship.

gratuities

gratuities

Samantha paid the waiter a $7.50 tip for the delicious dinner he served.

gratuities

Samantha paid the waiter a $7.50 tip for the delicious dinner he served.

Something given voluntarily or beyond obligation usually for some service**:** tip.

inequality

---

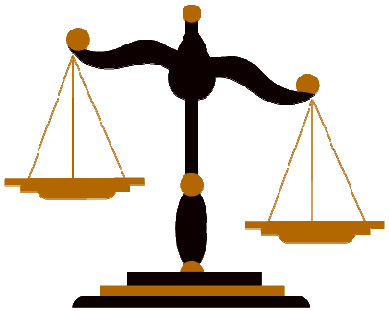
inequality

$5x + 6 < 20 - 2x$

---

inequality

$5x + 6 < 20 - 2x$



A mathematical sentence that compares two unequal expressions using one of the symbols $<$, $>$, $\leq$, $\geq$, or $\neq$.

inferences

inferences

Every 10 years, the United States Census Bureau surveys the entire United States and organizes all the data they collect. The government then uses statistics to organize and analyze the data to make logical conclusions about what kind of things may happen to us in the future.

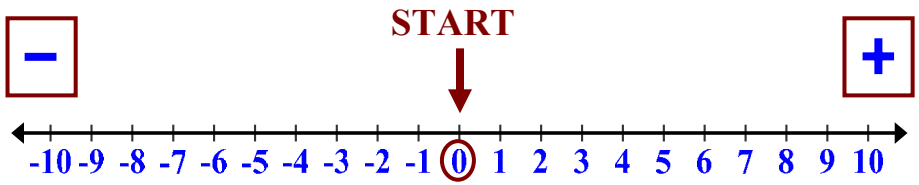
inferences

Every 10 years, the United States Census Bureau surveys the entire United States and organizes all the data they collect. The government then uses statistics to organize and analyze the data to make logical conclusions about what kind of things may happen to us in the future.

The act or process of deriving logical conclusions from premises known or assumed to be true.

integers

integers



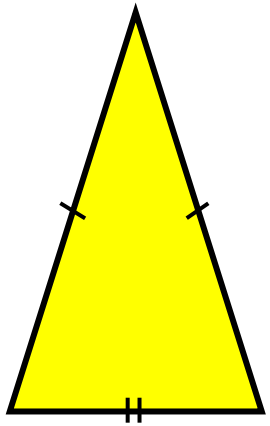
integers

The set of whole numbers and their opposites.

isosceles triangle

---

isosceles triangle



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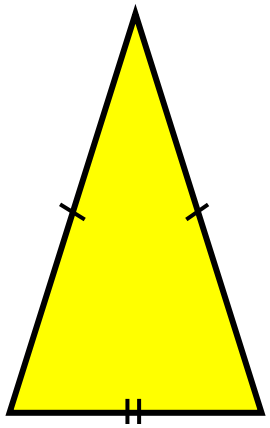
isosceles triangle



A triangle that has at least two congruent sides.

likely event

likely event

$$P(\text{number} < 5) = \frac{4}{6} = \frac{2}{3}$$

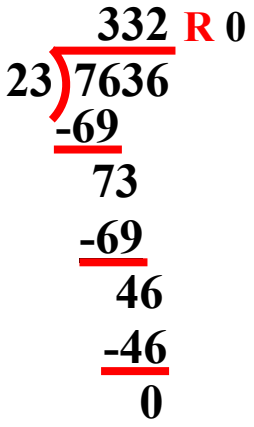
likely event

$$P(\text{number} < 5) = \frac{4}{6} = \frac{2}{3}$$

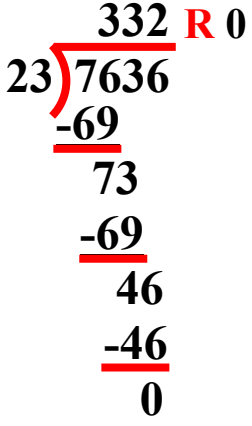
An event that is most likely to happen.

long division

long division



long division



A standard procedure suitable for dividing simple or complex multi-digit numbers.

markdowns

markdowns

An item originally priced at $55 is marked 25% off. What is the sale price?

First, I'll find the markdown. The markdown is 25% of the original price of $55, so:

$$x = (0.25)(55) = 13.75$$

By subtracting this markdown from the original price, I can find the sale price:

$$55 - 13.75 = 41.25$$

The sale price is $41.25.

markdowns

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$$55 - 13.75 = 41.25$$

The sale price is $41.25.

The amount by which a price is reduced.

markups

markups

A computer software retailer used a markup rate of 40%. Find the selling price of a computer game that cost the retailer $25.

The markup is 40% of the $25 cost, so the markup is:

$$(0.40)(25) = 10$$

Then the selling price, being the cost plus markup, is:

$$25 + 10 = 35$$

The item sold for $35. ***A $10 profit.***

markups

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$$25 + 10 = 35$$

The item sold for $35. ***A $10 profit.***

An amount added to the cost price to determine the selling price; broadly: profit

mean absolute deviation

mean absolute deviation

The weights of the three people are 56 kgs, 78 kgs, and 88 kgs.

Step 1: Find the mean. (56+78+88)/3 = 74

Step 2: Determine the deviation of each variable from the mean.
56 – 74 = -18
78-74=4
90-74=16

Step 3: Make the deviation 'absolute' by taking the absolute value of each deviation. (eliminate the negative)

Step 4: (18 + 4 + 16)/3 = 12.67 is the mean absolute deviation.

mean absolute deviation

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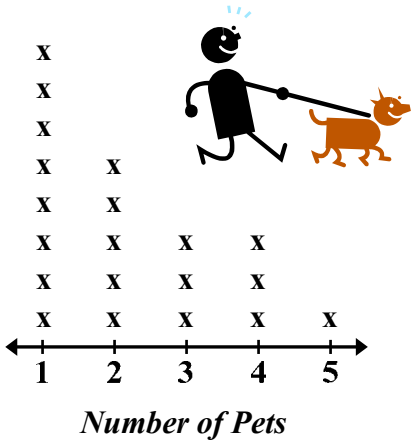
In statistics, the absolute deviation of an element of a data set is the absolute difference between that element and a given point.

measure of center

measure of center



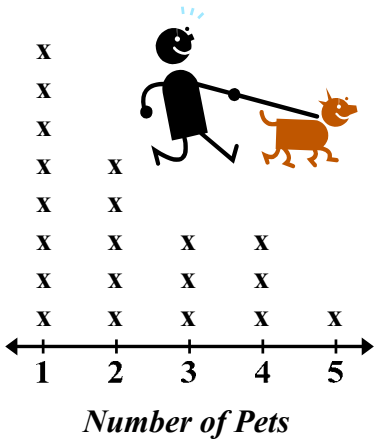
Examples:

Mode = 1

Median = 2

Mean = 2.3

measure of center



Examples:

Mode = 1

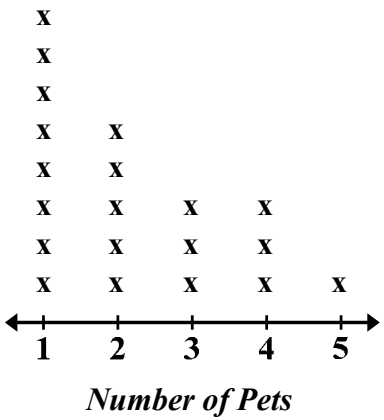
Median = 2

Mean = 2.3

An average; a single value that is used to represent a collection of data. Three commonly used types of averages are mode, median, and mean. (Also called measures of central tendency or measures of average.)

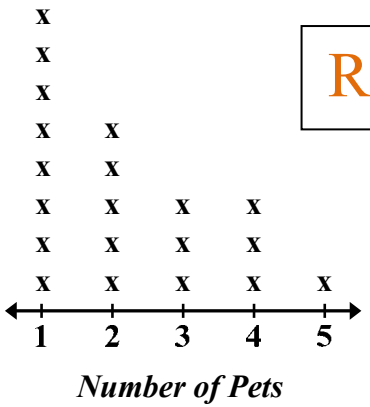
measure of variation

measure of variation



Range = 4

measure of variation



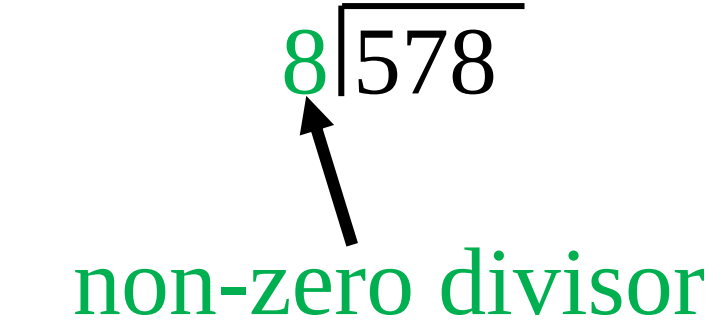
Range = 4

A measure of how much a collection of data is spread out. Commonly used types include range and quartiles. (Also known as spread or dispersion.)

non-zero divisor

non-zero divisor

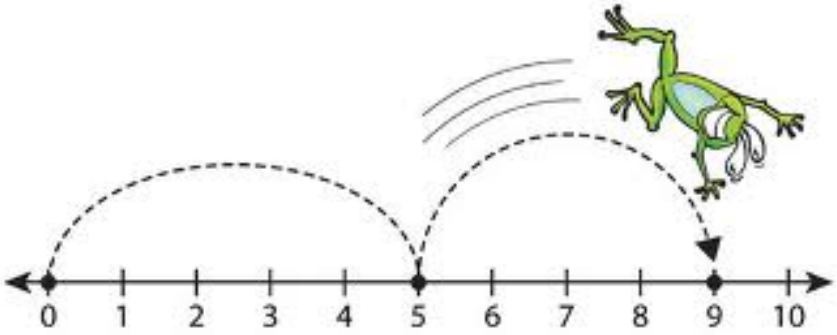
non-zero divisor



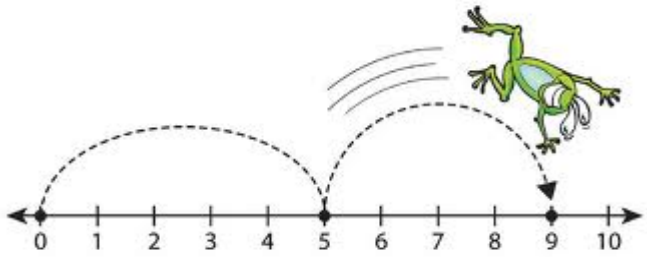
A quantity, not including zero, by which another quantity, the dividend, is to be divided.

number line

number line



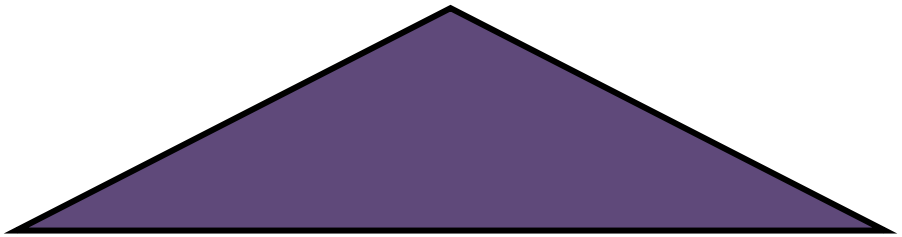
number line



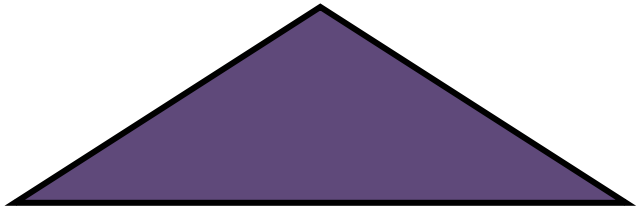
A diagram that represents numbers as points on a line.

obtuse triangle

obtuse triangle



obtuse triangle



A triangle that contains one angle with a measure greater than 90º (obtuse angle) and two acute angles.

ordered pair

---

ordered pair

(-5, 2)

(*x* , *y*)

---

ordered pair

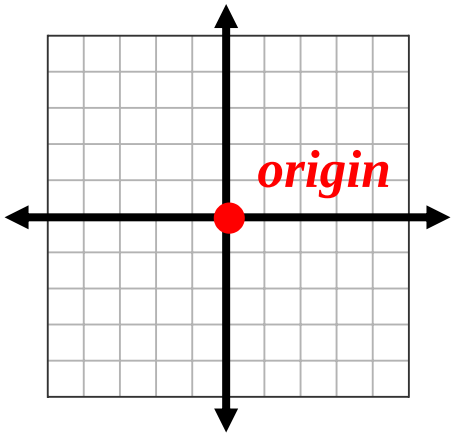
(-5, 2)

(*x* , *y*)

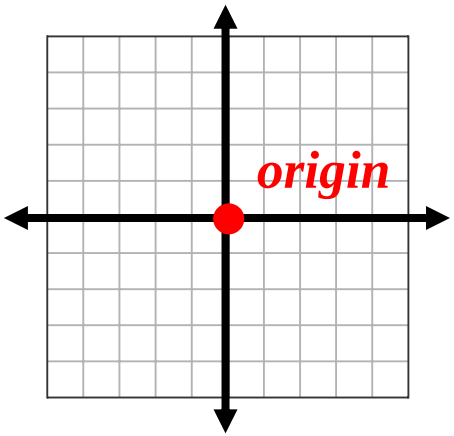
A pair of numbers that gives the coordinates of a point on a grid in this order (horizontal coordinate, vertical coordinate). Also known as a coordinate pair.

origin

origin



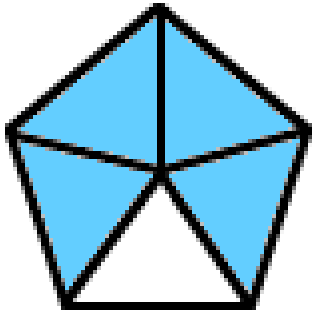
origin



The intersection of the *x*- and *y*-axes in a coordinate plane, described by the ordered pair (0, 0).

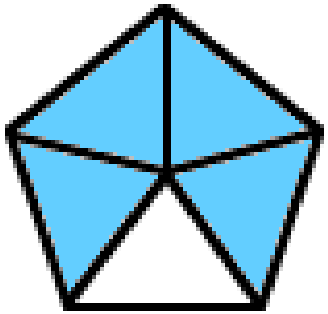
percent

percent



80% of the pentagon is shaded.

percent



80% of the pentagon is shaded.

A special ratio that compares a number to 100 using the symbol %.

percent decrease

percent decrease

$$\textit{percent decrease} = \frac{\textit{new amount} - \textit{original amount}}{\textit{original amount}} \bullet 100$$

Example: Suppose you buy stock in company A at a price of $1.25 per share in January of a given year. Suppose that by July it has fallen to $1.00 per share in the same time period. What is the percent decrease?

$$\textit{percent decrease} = \frac{\$1.00 - \$1.25}{\$1.25} \bullet 100 = -20\%$$

Also expressed a percent decrease 20%.

$$\textit{percent decrease} = \frac{\textit{new amount} - \textit{original amount}}{\textit{original amount}} \bullet 100$$

percent decrease

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Also expressed a percent decrease 20%.

Percent decrease is a measure of percent change, which is the extent to which a variable loses value. It is found by comparing the initial (or before) and final (or after) quantities according to a specific formula. It is assumed that both the initial and the final quantities are positive (larger than 0).

percent error

percent error

$$percent\ error = \frac{predicted\ value - actual\ value}{actual\ value} \bullet 100$$

Example: Patty had casually recorded her grades for the nine weeks in her notebook. She concluded she had 250 points out of 300 for the grading period. However, her math teacher determined she had 225 points out of 300 and awarded her a "C" for the grading period. What was her percent error?

$$percent\ error = \frac{250 - 225}{225} \bullet 100 = 11.1\%$$

percent error

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Example: Patty had casually recorded her grades for the nine weeks in her notebook. She concluded she had 250 points out of 300 for the grading period. However, her math teacher determined she had 225 points out of 300 and awarded her a "C" for the grading period. What was her percent error?

$$percent\ error = \frac{250 - 225}{225} \bullet 100 = 11.1\%$$

Percent error is the difference between a predicted value and the actual value. Percent errors tell you how close or how far you came to the actual answer.

Note: If your answer is negative it means you were short of the actual answer.

percent increase

percent increase

$$\textit{percent increase} = \frac{\textit{new amount} - \textit{original amount}}{\textit{original amount}} \bullet 100$$

Example: Suppose apples used to sell for seventy-five cents a pound, you see that it's been marked up to eighty-one cents a pound. What is the percent increase?

$$\textit{percent increase} = \frac{\$0.81 - \$0.75}{\$0.75} \bullet 100 = 8\%$$

Also expressed as an 8% percent increase in price per pound.

percent increase

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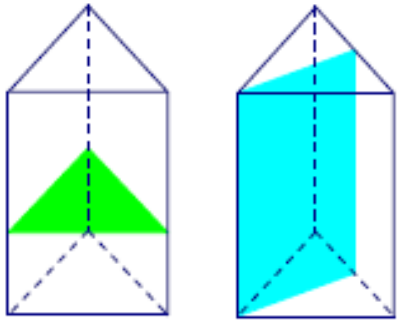
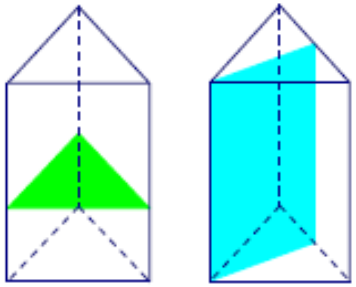
plane sections

plane sections



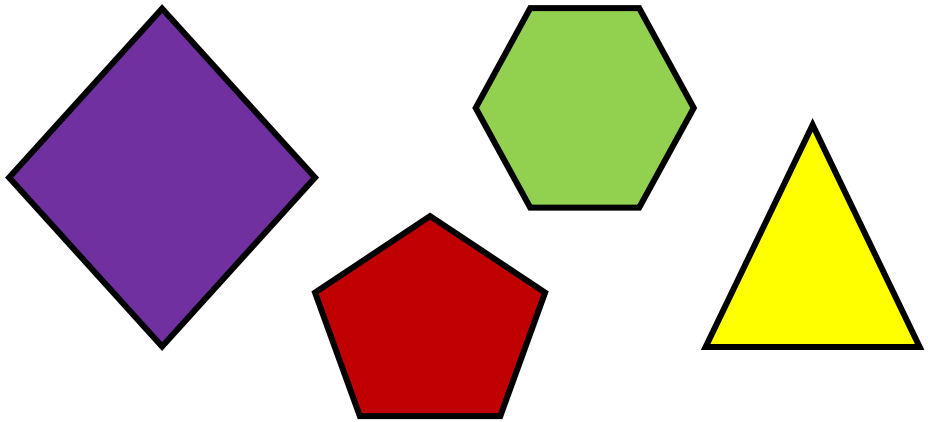
plane sections



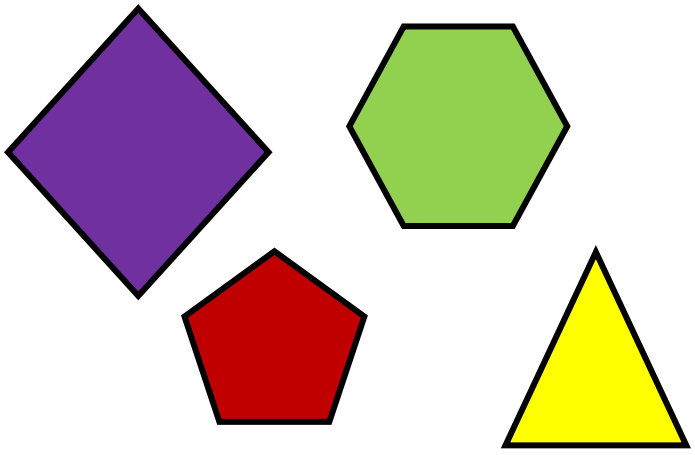
The area created by a plane cutting through a solid.

polygon

polygon



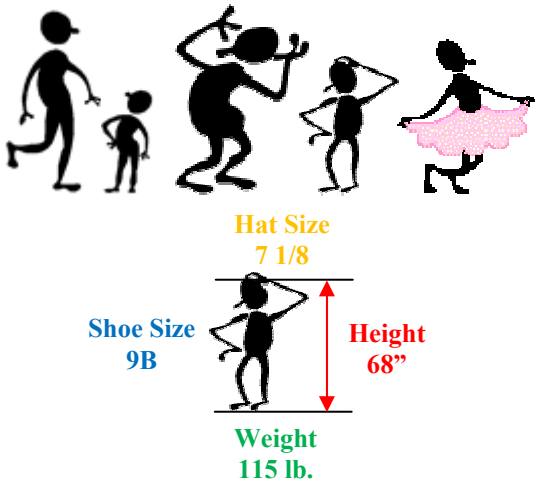
polygon



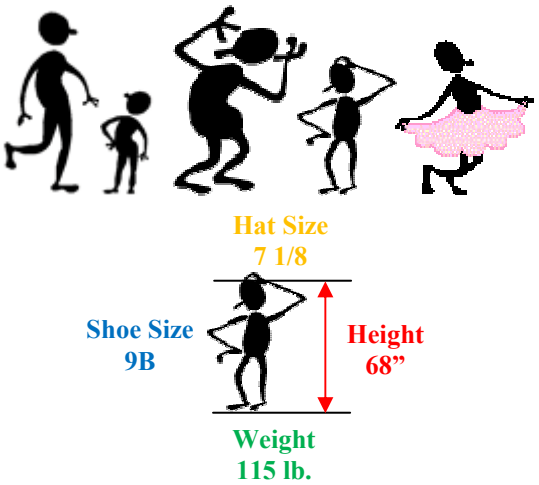
A closed figure formed from line segments that meet only at their endpoints.

population

population



population



The entire collection of items that is the focus of concern. A population can be of any size and while the items need not be uniform, the items must share at least one measurable feature.

prediction

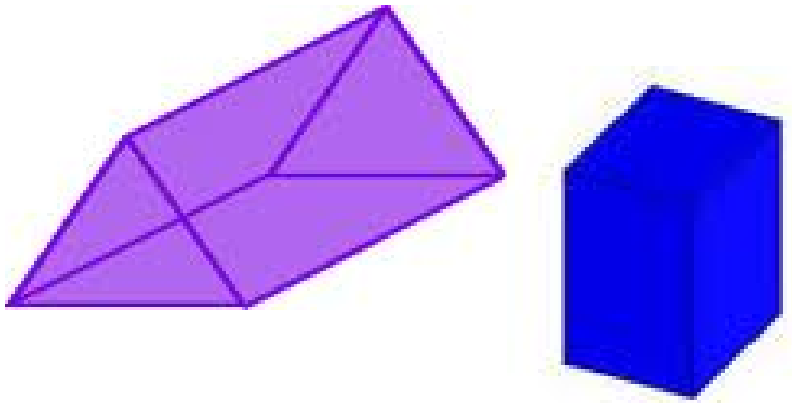
prediction

prediction

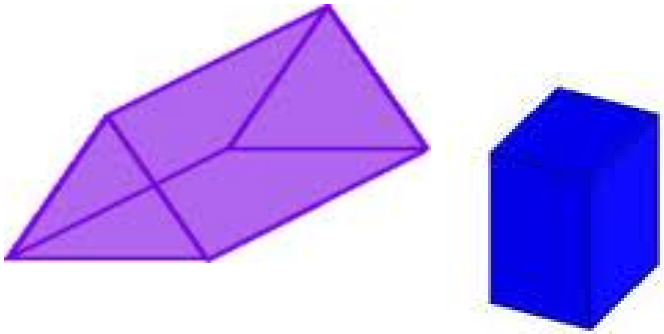
To state in advance on the basis of observation, experience, or scientific reason.

prism

prism



prism

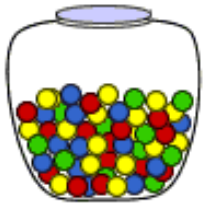


A 3-dimensional figure that has two congruent and parallel faces that are polygons. The remaining faces are parallelograms.

probability

probability

Example: A glass jar contains 6 red, 5 green, 8 blue and 3 yellow marbles. If a single marble is chosen at random from the jar, what is the probability of choosing a red marble?



$$P(red) = \frac{\#\ of\ ways\ to\ choose\ red}{total\ \#\ of\ marbles} = \frac{6}{22} = \frac{3}{11}$$

probability

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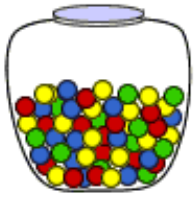


$$P(red) = \frac{\#\ of\ ways\ to\ choose\ red}{total\ \#\ of\ marbles} = \frac{6}{22} = \frac{3}{11}$$

The chance that a particular outcome will occur, measured as a ratio of the total possible outcomes.

proportion

proportion

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

proportion

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

An equation showing that two ratios are equivalent.

proportional relationship

proportional relationship

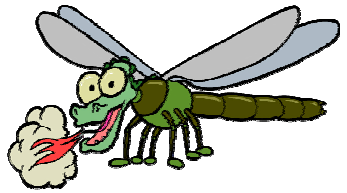
Example: A dragonfly travels 25 meters per second. At this speed, how long would it take for the dragonfly to travel 375 meters?

There are three quantities in this example: distance traveled, time elapsed, and the speed with which the dragonfly travels. We could use the letter *d* stand for the distance the dragonfly travels, *t* stand for the time that has elapsed, and *r* stand for the speed or rate in which it travels. Thus, $d = rt$.

$$375 = 25 \cdot t$$

$$\frac{375}{25} = t$$

$$t = 15\text{sec}$$



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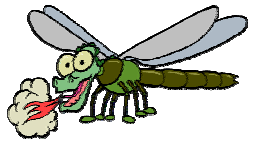
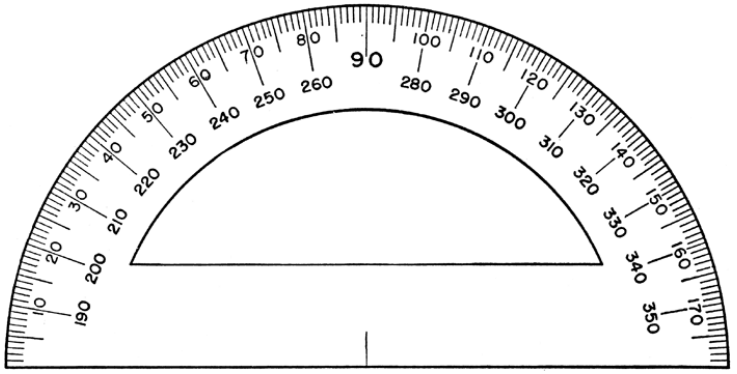


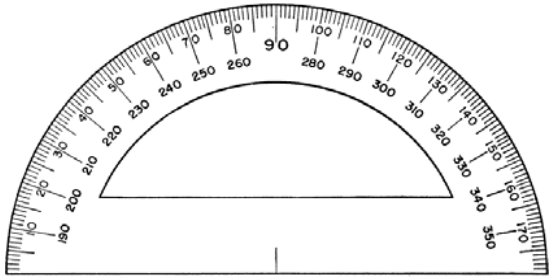
A proportional relationship is a relationship between two variable quantities *x* and *y*, where *y* is a constant multiple (*k*) of *x*. This can be expressed in the simple equation, $y = kx$.

protractor

protractor



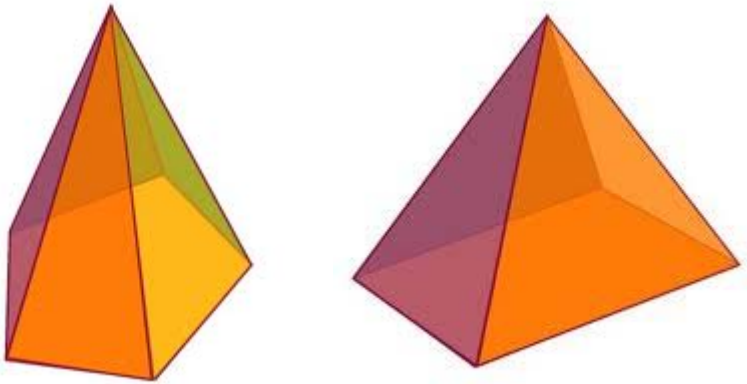
protractor



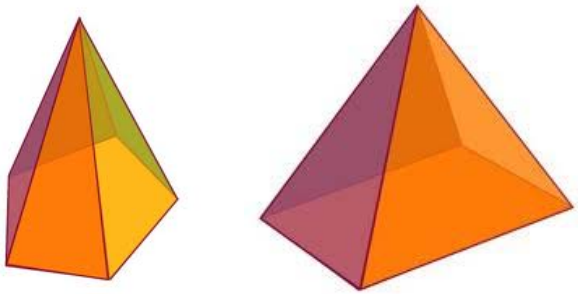
A tool used to measure and draw angles.

pyramid

pyramid



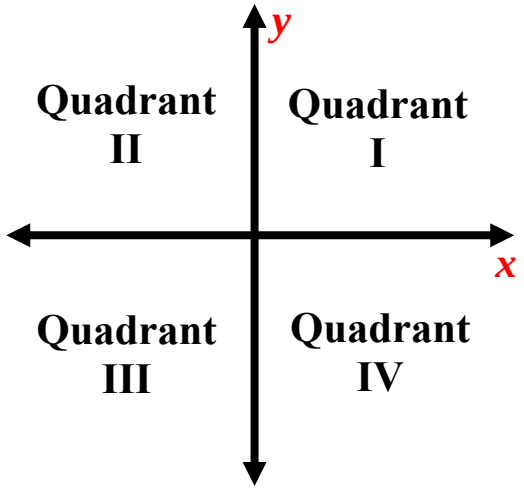
pyramid



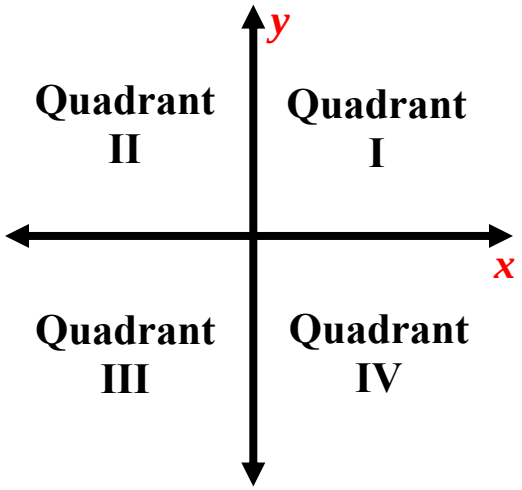
A polyhedron whose base is a polygon and whose other faces are triangles that share a common vertex.

quadrants

quadrants



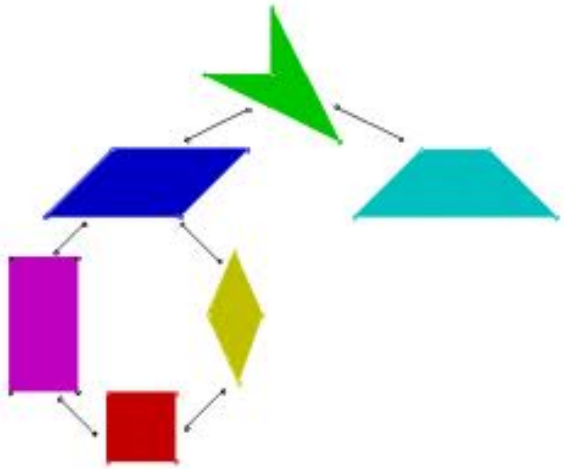
quadrants



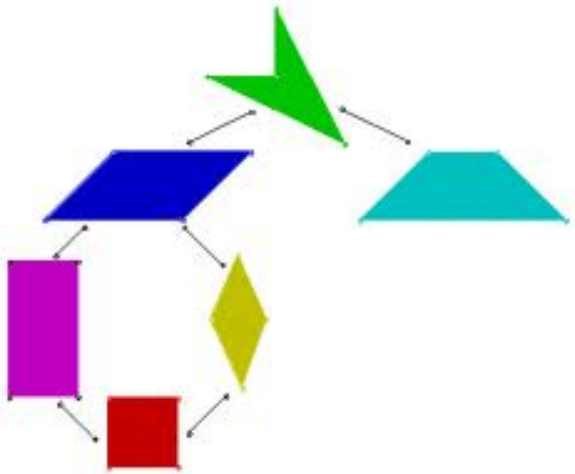
The four sections of a coordinate grid that are separated by the axes.

quadrilateral

quadrilateral



quadrilateral



A four-sided polygon.

quotient

quotient

quotient

$$9\overline{)137} \quad 15 \text{ R } 2$$

quotient

quotient

$$9\overline{)137} \quad 15 \text{ R } 2$$

The result of the division of one quantity by another.

random sample

random sample

Draw a number out of the hat!

random sample

Draw a number out of the hat!

A selection that is chosen randomly (purely by chance, with no predictability.)

rate

rate

The car was traveling 65 miles per hour on the freeway.

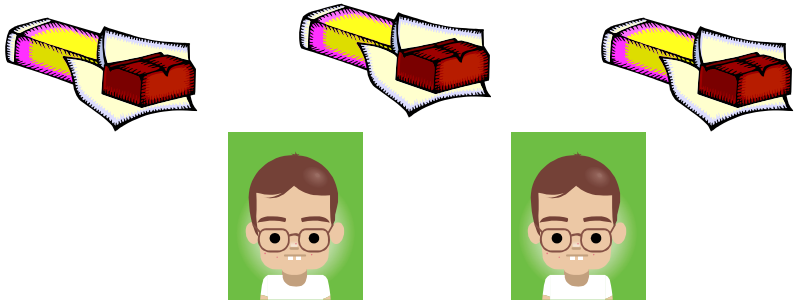
rate

The car was traveling 65 miles per hour on the freeway.

A ratio comparing two different units.

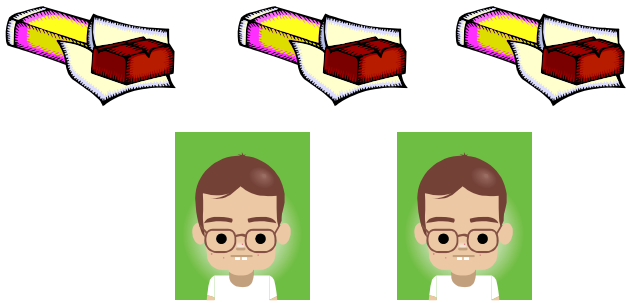
ratio

ratio



The ratio of chocolate bars to boys is 3:2.

ratio



The ratio of chocolate bars to boys is 3:2.

A comparison of two numbers using division.

rational coefficient

rational coefficient

$\frac{2}{3}x+7$

rational coefficient

rational coefficient

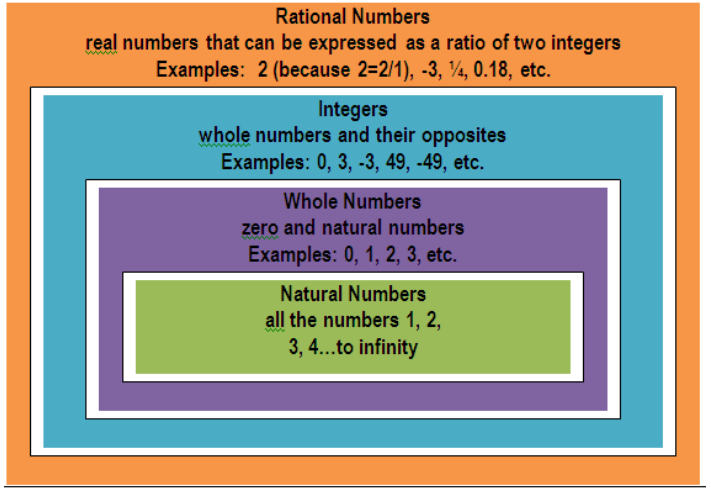
$\frac{2}{3}x+7$

rational coefficient

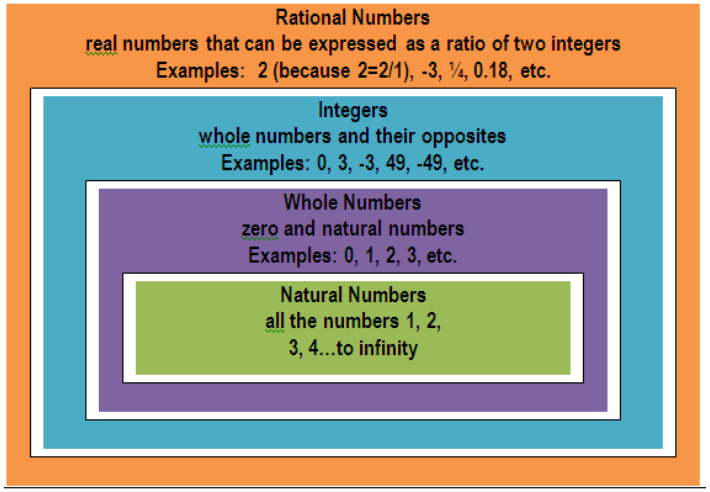
A rational number which multiplies a variable.

rational number

rational number



rational number



A number that can be expressed as a ratio of two integers.

relative frequency

relative frequency

Example: Suppose we toss a coin 50 times and have 27 heads and 23 tails. The relative frequency of heads is:

$$\frac{27}{50} = 54\%$$

relative frequency

Example: Suppose we toss a coin 50 times and have 27 heads and 23 tails. The relative frequency of heads is:

$$\frac{27}{50} = 54\%$$

The ratio of the actual number of favorable events to the total possible number of events; often taken as an estimate of probability.

repeating decimal

repeating decimal

$\frac{1}{3} = 0.333333333333$

$\frac{1}{7} = 0.142857142857$

repeating decimal

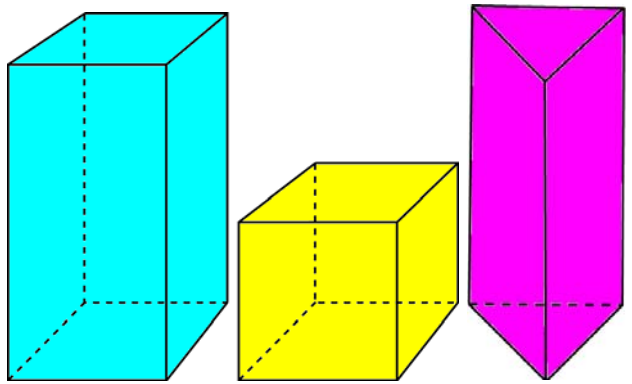
$\frac{1}{3} = 0.333333333333$

$\frac{1}{7} = 0.142857142857$

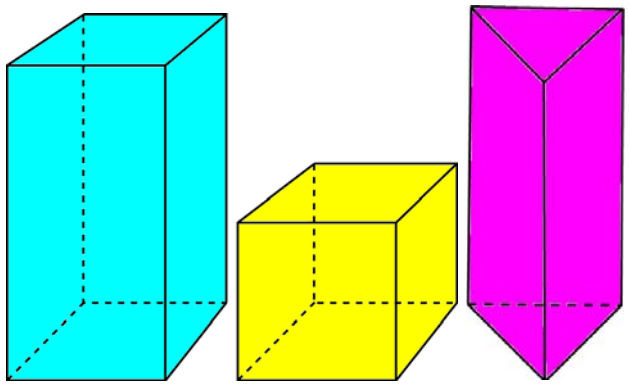
A decimal which has repeating digits or a repeating pattern of digits.

right prism

right prism



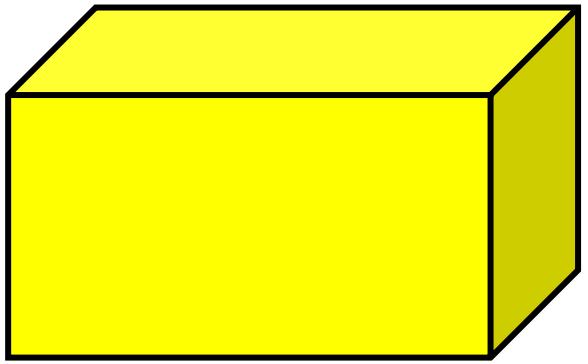
right prism



A prism where the lateral faces are at right angles to the base.

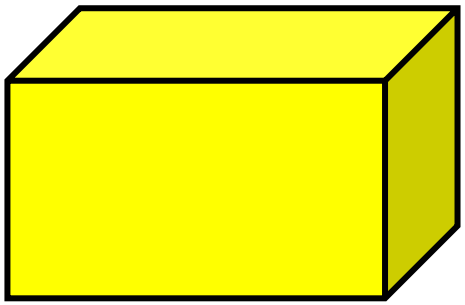
right rectangular prism

right rectangular prism



....

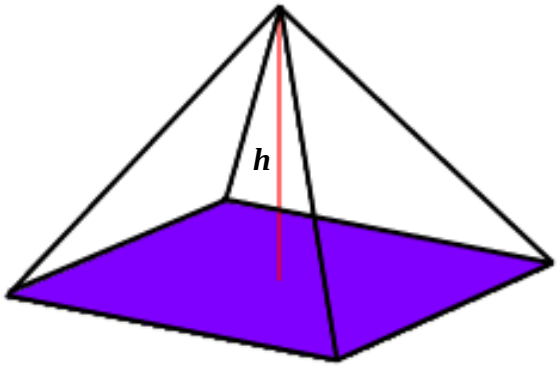
right rectangular prism



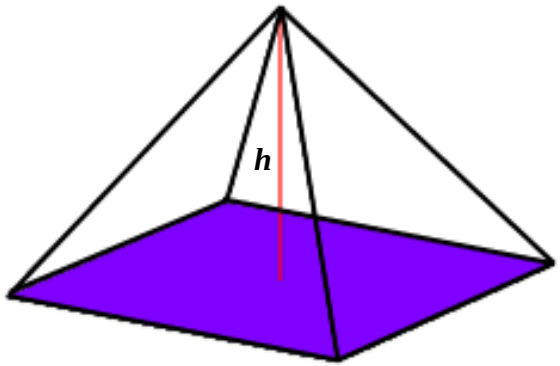
A prism with six rectangular faces where the lateral edge is perpendicular to the plane of the base.

right rectangular pyramid

right rectangular pyramid



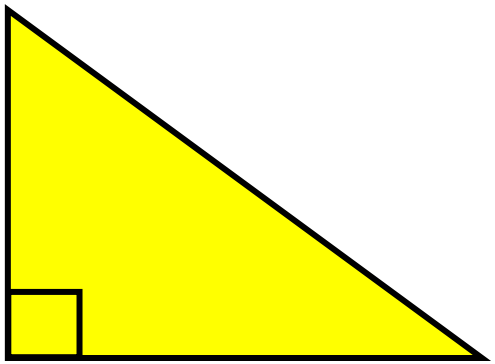
right rectangular pyramid



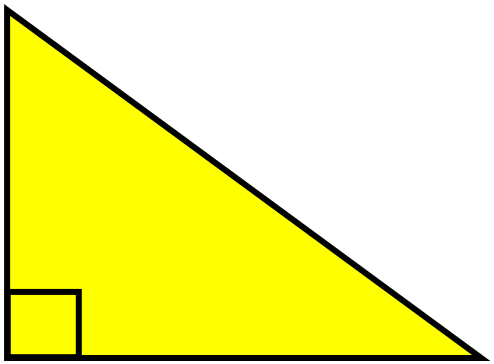
A pyramid that has its apex aligned directly above the center of its rectangular base.

right triangle

right triangle



right triangle



A triangle that has one 90º angle.

sample space

sample space

sample space: **{head, tail}**

sample space: **{1, 2, 3, 4, 5, 6}**

sample space

sample space: **{head, tail}**

sample space: **{1, 2, 3, 4, 5, 6}**

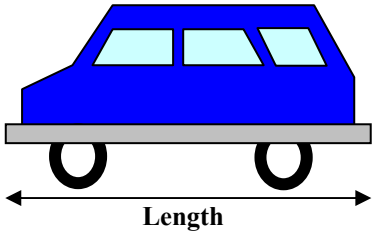
The set of all possible outcomes of a random process.

scale drawing

---

scale drawing

Since it is not always possible to draw on paper the actual size of real-life objects such as the real size of a car, an airplane, we need scale drawings to represent the size like the one you see below of a van.



In real-life, the length of this van may measure 240 inches. However, the length of the van above is 2 inches. You can write this scale factor as 1:20 or 1/20 or 1 to 20.

---

scale drawing

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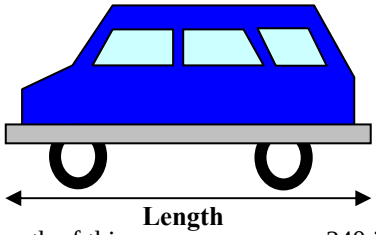
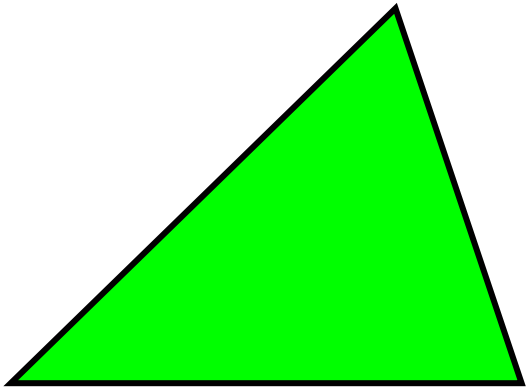


In real-life, the length of this van may measure 240 inches. However, the length of the van above is 2 inches. You can write this scale factor as 1:20 or 1/20 or 1 to 20.

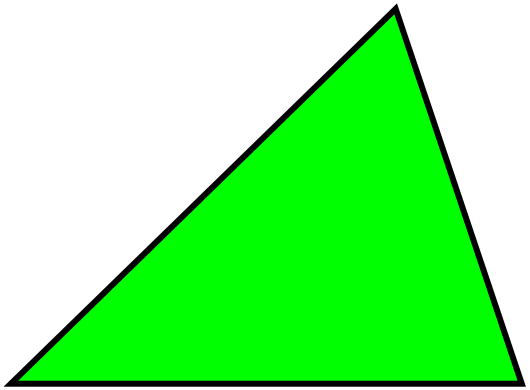
A drawing of an object or structure showing all parts in the same proportion of their true size.

scalene triangle

scalene triangle



scalene triangle



A triangle that has no congruent sides.

signed number

signed number

-5 +8 +45 -23

signed number

-5 +8 +45 -23

Positive or negative number.

simple interest

simple interest

$$I = p \bullet r \bullet t$$

Interest = Principal × Rate × Time

‘Interest’ is the total amount of interest paid.
‘Principal’ is the amount lent or borrowed.
‘Rate’ is the percentage charged as interest each year.
‘Time’ is the time in years of the loan.

simple interest

$$I = p \bullet r \bullet t$$

Interest = Principal × Rate × Time

‘Interest’ is the total amount of interest paid.
‘Principal’ is the amount lent or borrowed.
‘Rate’ is the percentage charged as interest each year.
‘Time’ is the time in years of the loan.

A quick method for calculating the interest charge on a loan.

simulation

simulation

simulation

Carrying out a simple experiment to collect data.

solution set

solution set

The solution set of the equation $3x + 2 = 5$ is $\{1\}$.

The solution set of the equation $3x + 2 = 3x + 2$ is $(-\infty, \infty)$.

solution set

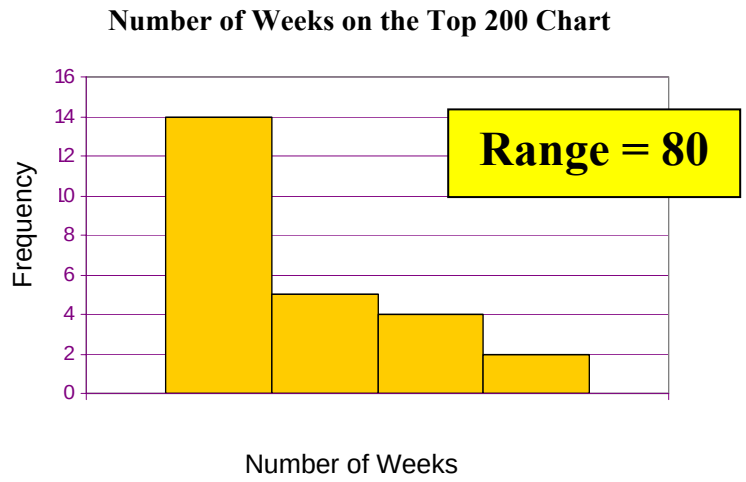
The solution set of the equation $3x + 2 = 5$ is $\{1\}$.

The solution set of the equation $3x + 2 = 3x + 2$ is $(-\infty, \infty)$.

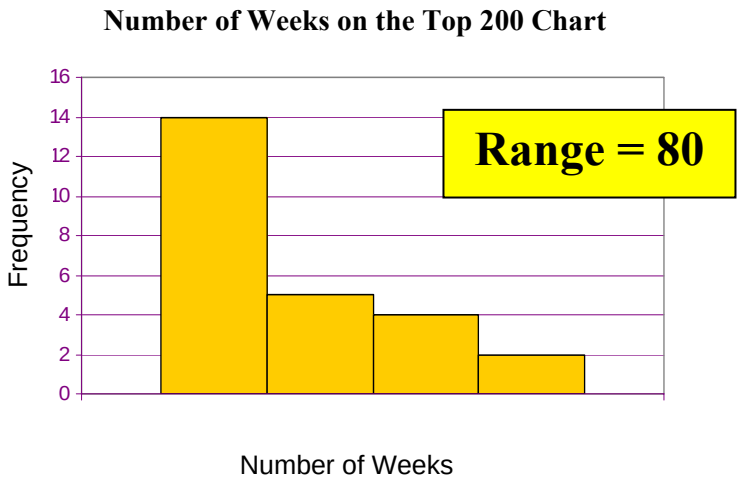
A set of values that satisfy a given set of equations or inequalities.

spread

spread



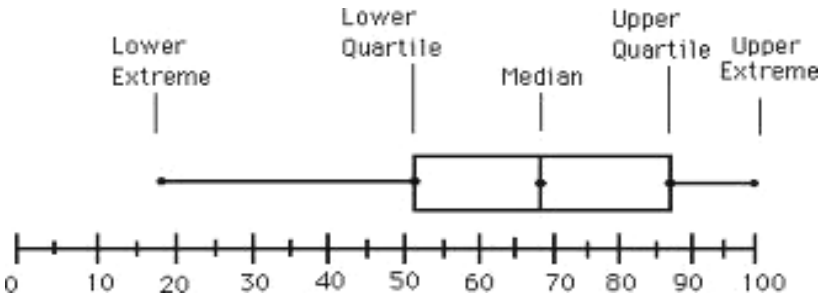
spread



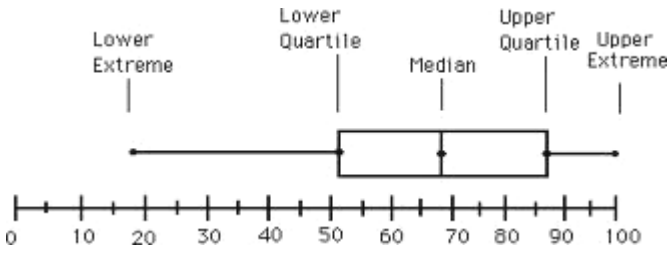
A measure of how much a collection of data is spread out. Commonly used types include range and quartiles. (Also known as measures of variation or dispersion.)

statistical variability

statistical variability



statistical variability

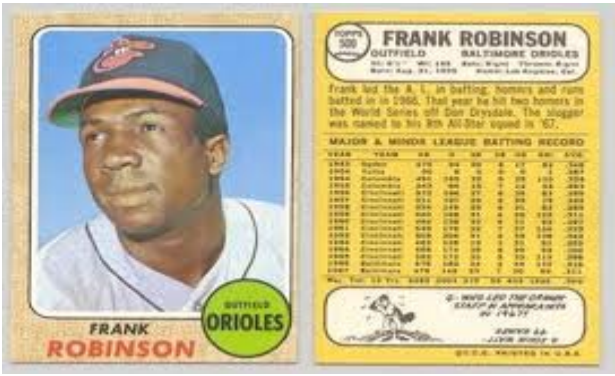


A variability or spread in a variable or a probability distribution. Common examples of measures of statistical dispersion are the variance, standard deviation, and interquartile range.

statistics

statistics

This baseball card shows statistics for a famous baseball player.



statistics

This baseball card shows statistics for a famous baseball player.

The science of collecting, organizing, representing, and interpreting data.

substitution

substitution

If x is equal to 9, then …

$8x + 4 = ?$

$8(9) + 4 = 76$

substitution

If x is equal to 9, then …

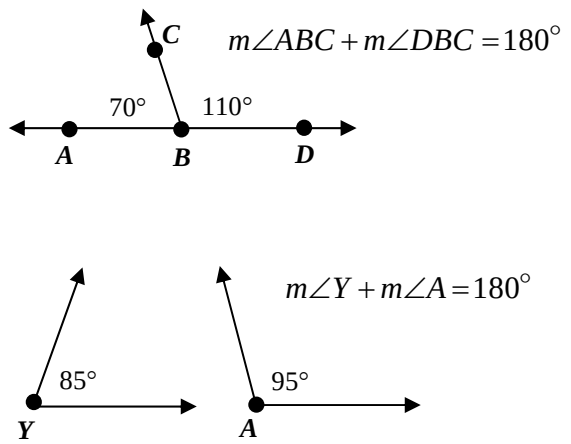
$8x + 4 = ?$

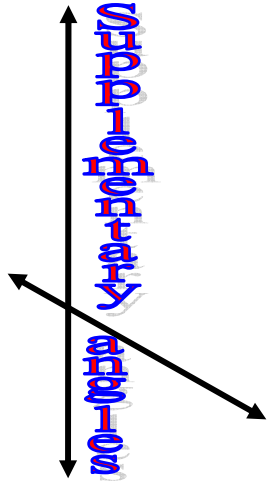
$8(9) + 4 = 76$

The replacement of the letters in an algebraic expression with known values.

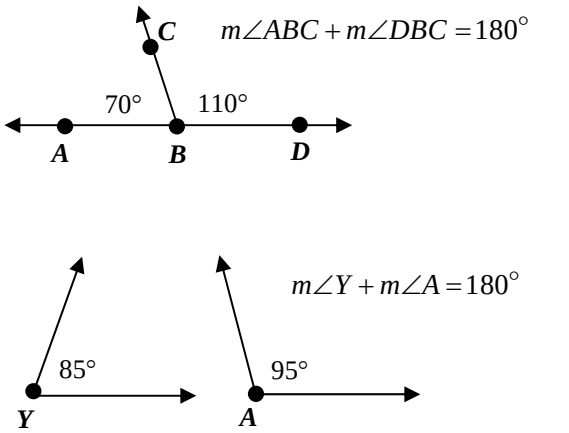
supplementary angles

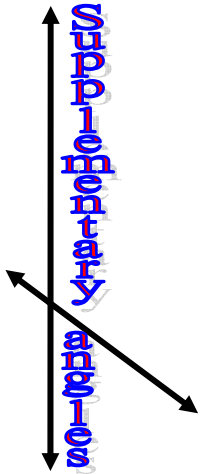
supplementary angles





supplementary angles

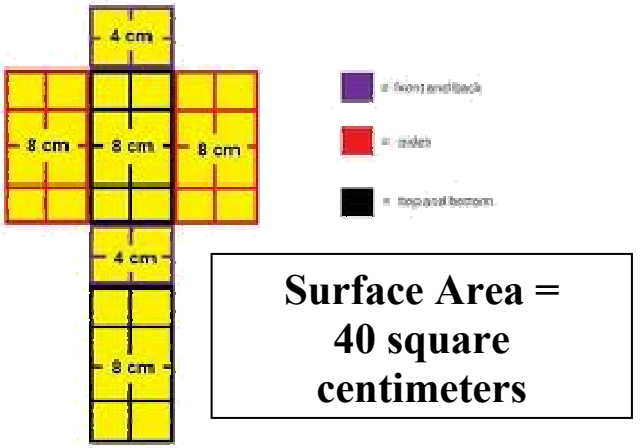




If the sum of the measures of two angles is 180°, then the two angles are **supplementary**. If two angles form a straight line, then they are supplementary.

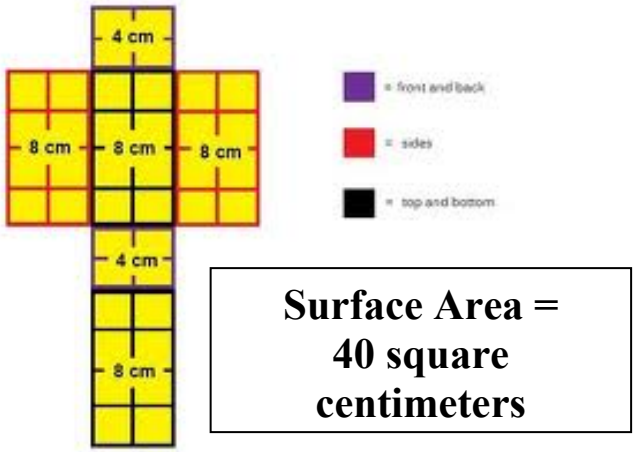
surface area

surface area



Surface Area = 40 square centimeters

surface area

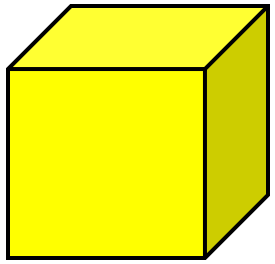


Surface Area = 40 square centimeters

The total area of the faces (including the bases) and curved surfaces of a solid figure.

surface area (cube)

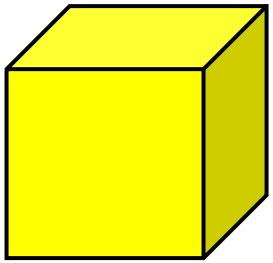
surface area (cube)



s = length of base

$$SA = 6s^2$$

surface area (cube)



s = length of side

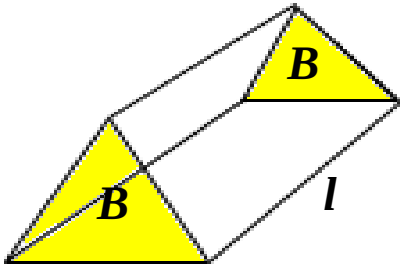
$$SA = 6s^2$$

Surface Area of Cube:

Surface Area = $6 \cdot (\text{length of side})^2$

surface area (right prism)

surface area (right prism)

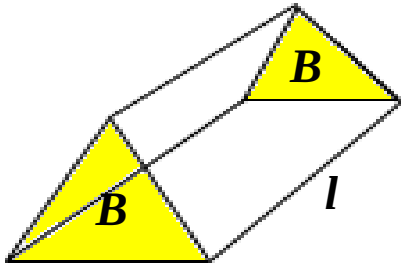


SA = lateral area + area of two ends

(Lateral Area) = (perimeter of shape ***B***) • *l*

SA = (perimeter of shape ***B***) • *l* + 2 • (Area of shape ***B***)

surface area (right prism)



SA = lateral area + area of two ends

(Lateral Area) = (perimeter of shape ***B***) • *l*

SA = (perimeter of shape ***B***) • *l* + 2 • (Area of shape ***B***)

Surface Area of Right Prism:

Surface Area =
lateral area + area of two ends

tax

---

tax

John bought a new outfit and was charged a 6.67% sales tax.

---

tax

John bought a new outfit and was charged a 6.67% sales tax.

A fee charged by a government on a product, income, or activity.

terminating decimal

terminating decimal

$\frac{1}{4} = 0.25$ $\frac{1}{5} = 0.2$

$\frac{1}{8} = 0.125$ $\frac{1}{10} = 0.1$

terminating decimal

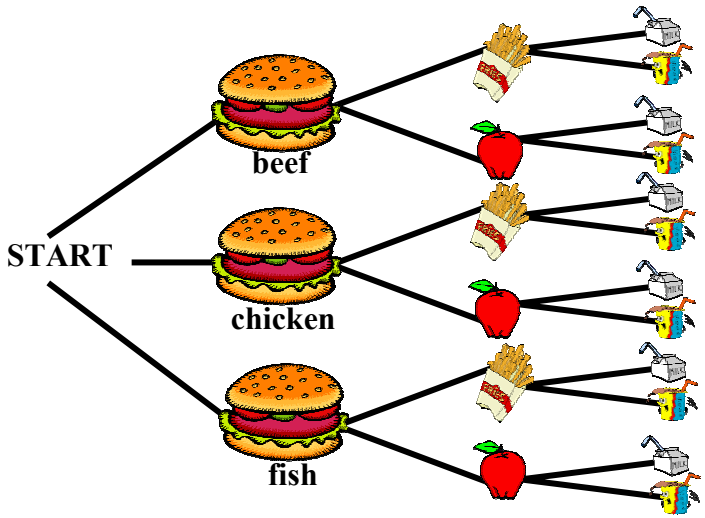
$\frac{1}{4} = 0.25$ $\frac{1}{5} = 0.2$

$\frac{1}{8} = 0.125$ $\frac{1}{10} = 0.1$

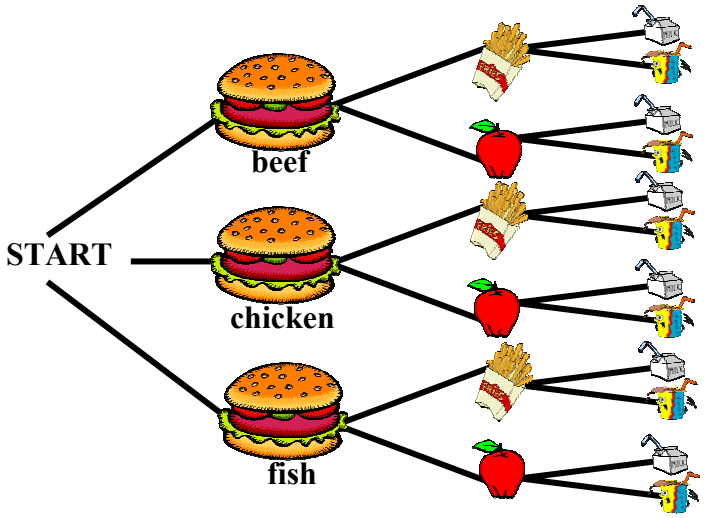
A decimal which has a finite number of digits.

tree diagrams

tree diagrams



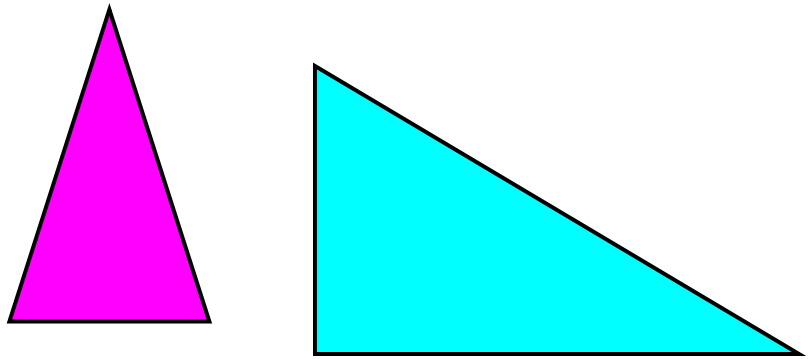
tree diagrams



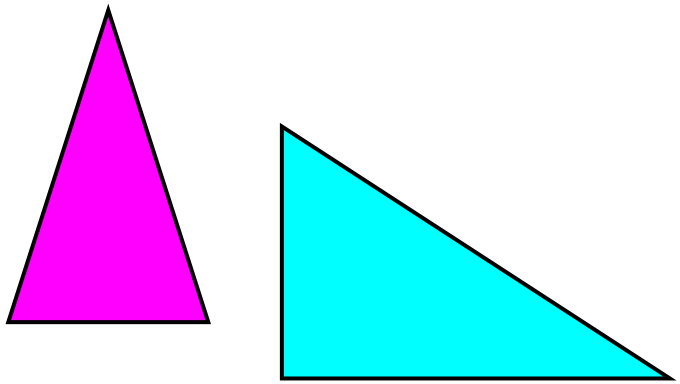
A diagram shaped lie a tree used to display sample space by using one branch for each possible outcome.

triangle

triangle



triangle



A polygon with three angles and three sides.

unit rate
(constant of proportionality)

---

unit rate
(constant of proportionality)

Cereal is $0.43 per 1 ounce.

---

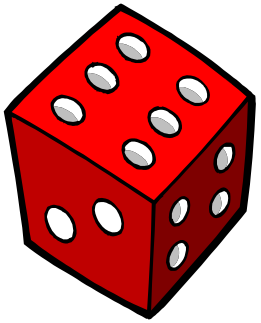
unit rate
(constant of proportionality)

Cereal is $0.43 per 1 ounce.

A rate with a denominator of 1.

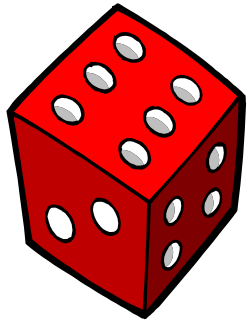
unlikely event

unlikely event



1-in-6 chance of rolling a 6

unlikely event



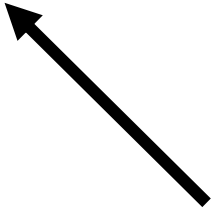
1-in-6 chance of rolling a 6

An event that will probably not happen. An outcome with a probability between 0 and 0.5

variable

variable

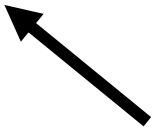
$2n + 3 = 11$



variable

variable

$2n + 3 =$

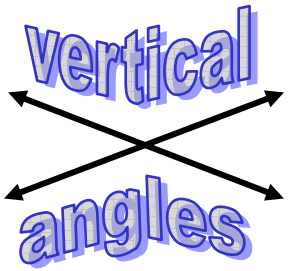


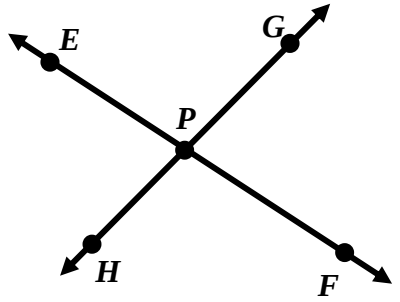
variable

A quantity that changes or can have different values. A symbol, usually a letter, that can stand for a variable quantity.

vertical angle

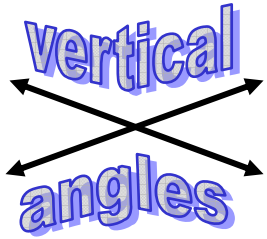
vertical angle

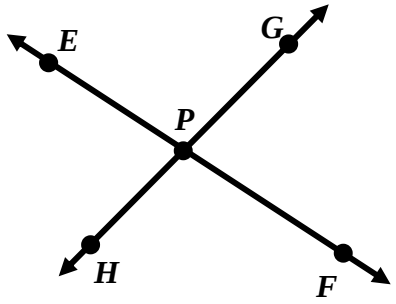




$\angle EPG \cong \angle FPH$
and
$\angle GPF \cong \angle HPE$

vertical angle



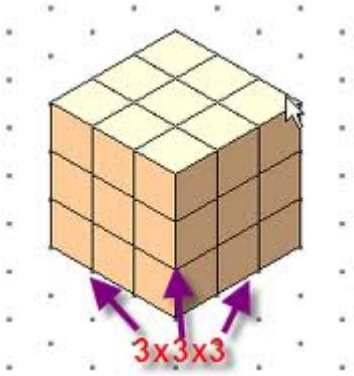


$\angle EPG \cong \angle FPH$
and
$\angle GPF \cong \angle HPE$

A pair of angles is said to be **vertical** if the angles share the same vertex and are bounded by the same pair of lines but are opposite to each other. Such angles are congruent and thus have equal measure.

volume

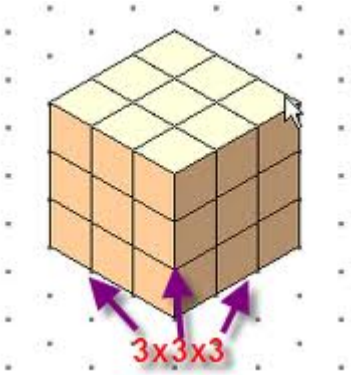
volume



Volume =

27 cubic units

volume



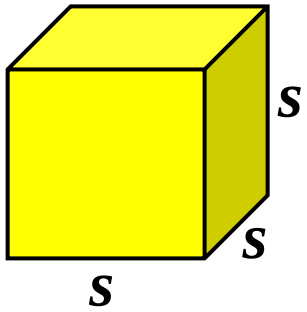
Volume =

27 cubic units

The number of cubic units it takes to fill a figure.

volume (cube)

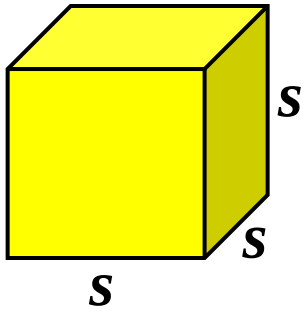
volume (cube)



s = length of side

$$V = s^3$$

volume (cube)



s = length of side

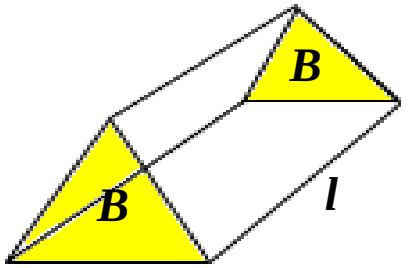
$$V = s^3$$

Volume of Cube:

Volume = (side length)^3

volume
(right prism)

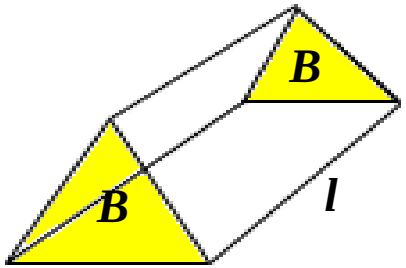
volume
(right prism)



V = area of base • *l*

V = *B* • *l*

volume
(right prism)



V = area of base • *l*

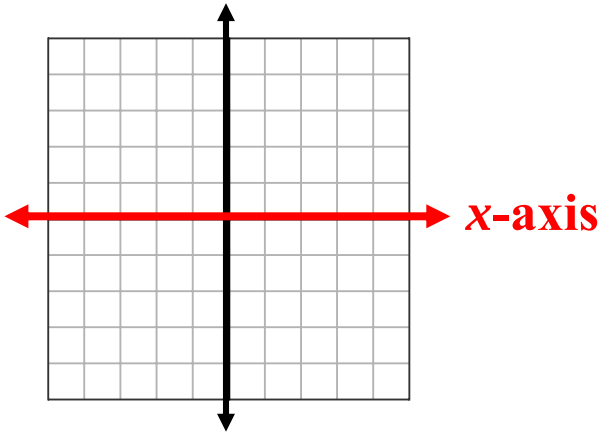
V = *B* • *l*

Volume of Right Prism:

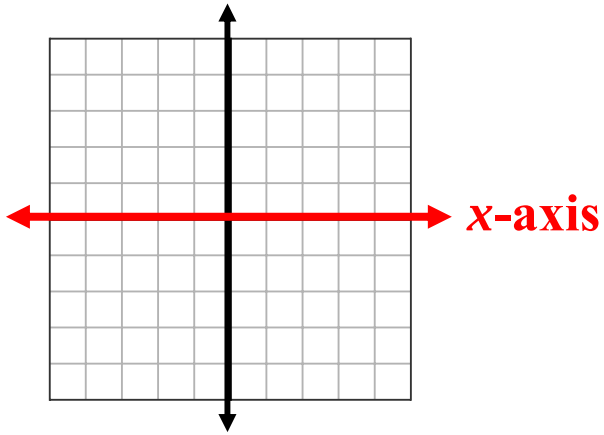
Volume =
area of base • length

x-axis

x-axis



x-axis



In a Cartesian grid, the horizontal axis.

x-coordinate

x-coordinate

(7, 2)

x-coordinate

x-coordinate

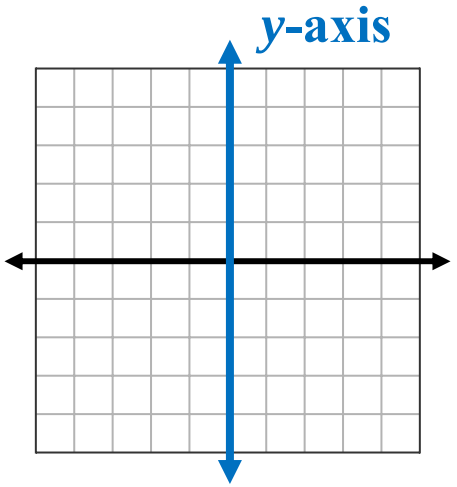
(7, 2)

x-coordinate

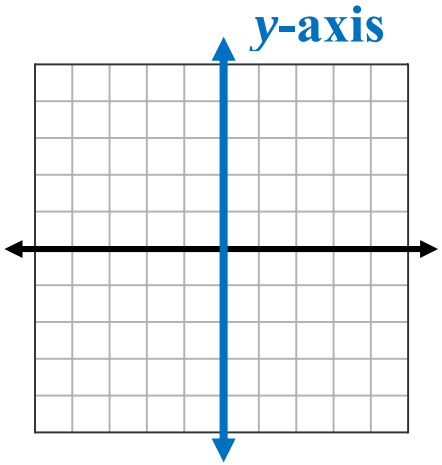
In an ordered pair, the value that is always written first.

y-axis

y-axis



y-axis



In a Cartesian grid, the vertical axis.

y-coordinate

y-coordinate

(7, 2)

y-coordinate

y-coordinate

(7, 2)

y-coordinate

In an ordered pair, the value that is always written second.