

Secondary 1

Vocabulary Cards and Word Walls

Revised: June 27, 2012

The vocabulary cards in this file match the Common Core, the math curriculum adopted by the Utah State Board of Education, August 2010.

The cards are arranged alphabetically.

Bibliography of Definition Sources:

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absolute value equation

$$|3x - 7| = 23$$

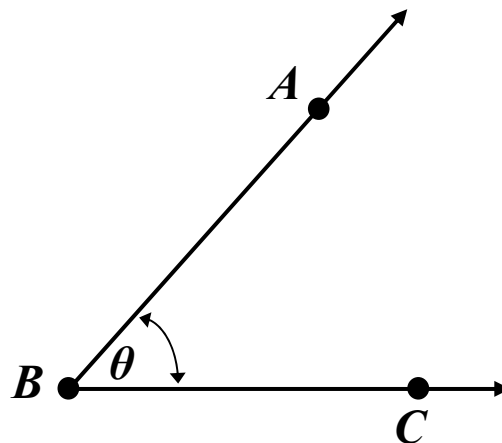
An equation with a variable within an absolute value symbol.

absolute value inequality

$$18 < |-2x + 6|$$

An inequality that has a variable within an absolute value symbol.

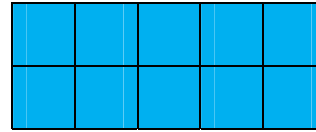
angle



The union of two rays that have the same endpoint.

area

2 rows of 5 = 10 square units
or
 $2 \cdot 5 = 10$ square units



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

arithmetic sequence

$$a_n = a_1 + (n - 1)d$$

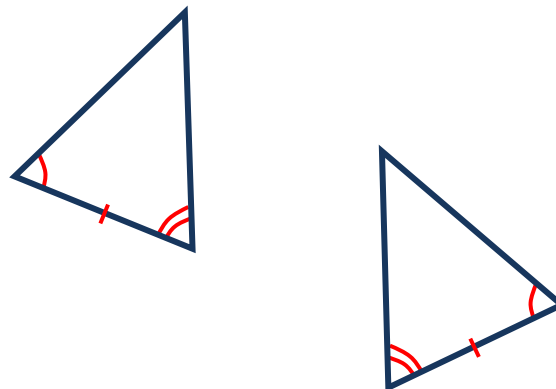
The first term is a_1 , the common difference is d , and the number of terms is n .

Example: 3, 7, 11, 15, 19
 $a_1 = 3$, $d = 4$, $n = 5$

The explicit formula is
 $a_n = 3 + (n - 1) \cdot 4 = 4n - 1$

A sequence such as 1, 5, 9, 13, 17, 21 or 12, 7, 2, -3, -8, -13 which has a constant difference between terms.

ASA



ASA (Angle-Side-Angle)

If two angles and the included side of one triangle are congruent to the corresponding angles and included side of another triangle, then the triangles are congruent.

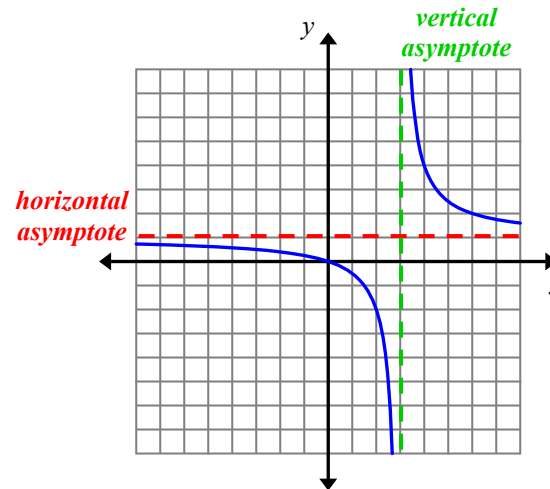
association



The more food you eat, the more calories you ingest.

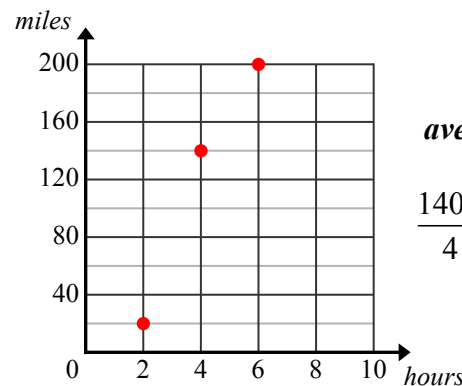
Any relationship between two measured quantities that renders them statistically dependent. The term “association” refers broadly to any such relationship, whereas the “correlation” refers to a linear relationship between two quantities.

asymptote



A line that the graph of a function gets closer to as x or y gets larger in absolute value.

average rate of change

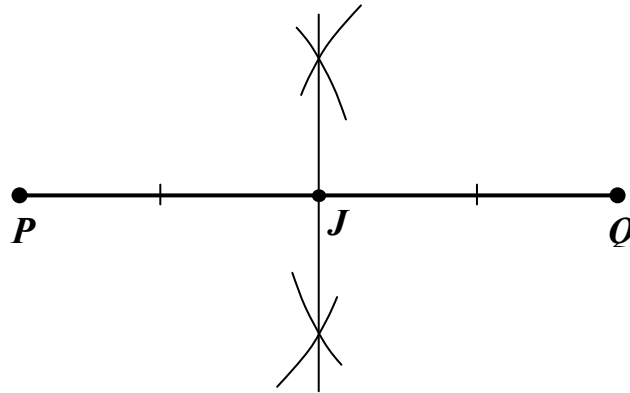


average rate of change

$$\frac{140 - 20}{4 - 2} = \frac{120}{2} = 60 \text{ mph}$$

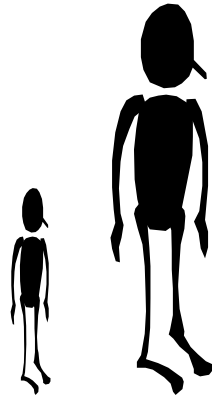
The average rate of change of a function between any two points is the slope of the line connecting those two points.

bisect



Divide into two equal parts.

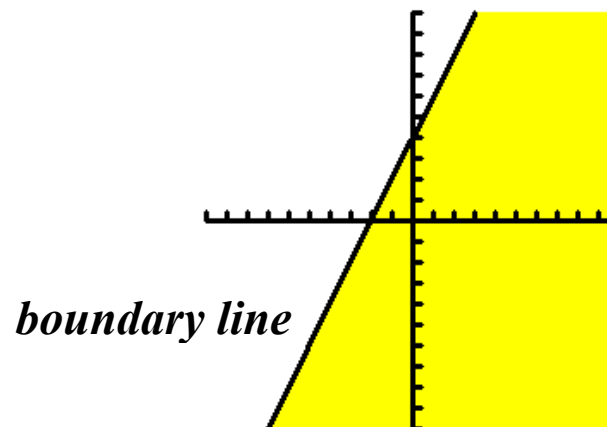
bivariate data



<i>Height (inches)</i>	<i>Weight (pounds)</i>
67	155
72	220
77	240
74	195
69	175

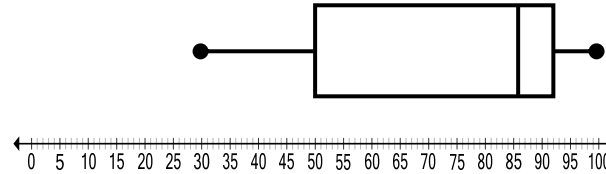
A set of data that show the relationship between two variables.

boundary line



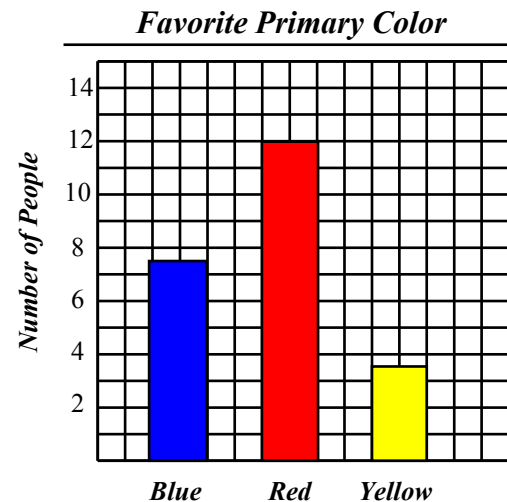
The line that divides a plane into two half-planes, e.g., when graphing the inequality $y \leq 2x + 4$ the boundary line is the graph $y = 2x + 4$. The boundary line may or may not be part of the solution to an inequality.

box plot



A diagram that shows the five number summary of a distribution. (Five number summary includes lowest value, lower quartile, median, upper quartile, and highest value.)

categorical (qualitative) data



Data where the values of the variables are merely the names of discrete, independent categories. The categories can be given numerical codes, but they cannot be ranked, added, multiplied or measured against each other.

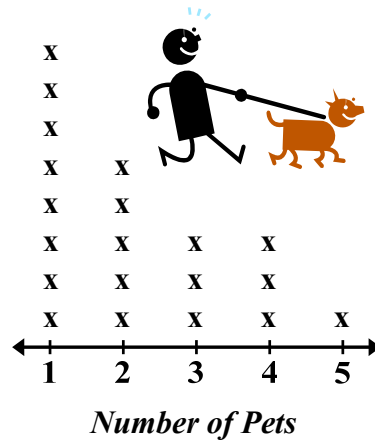
causation

Ulcers are caused by stress and spicy food.

There is a *correlation* between the independent variables (stress/spicy food) and the dependent variable (ulcers) but the independent variables were **NOT** the cause. We know that ulcers are caused by a corkscrew-shaped bacterium *Helicobacter pylori* (H.pylori).

The relationship between cause and effect. This occurs **only** when the relationship between the two variables can be proven through a scientific experiment following strict guidelines. Only in this way can we rule out other factors that may affect the relationship that we see in the observed values.

center



Examples:

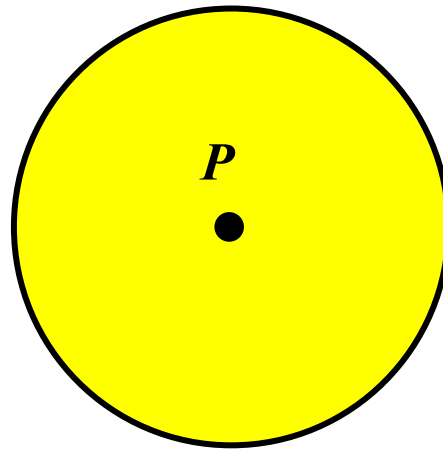
Mode = 1

Median = 2

Mean = 2.3

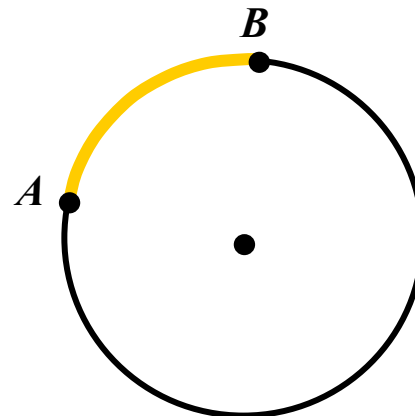
An average; a single value that is used to represent a collection of data. Three commonly used types of averages are mode, median, and mean. (Also called measures of central tendency or measures of average.)

circle



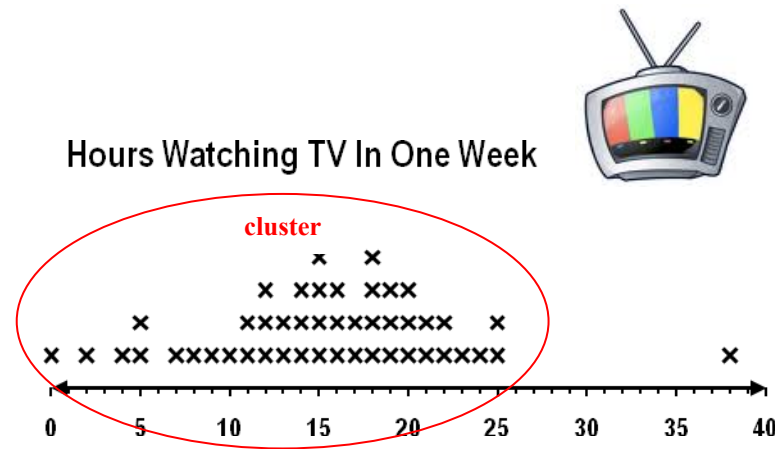
A plane figure with all points the same distance from a fixed point called a center.

circular arc



A segment of the circumference of a circle.

cluster



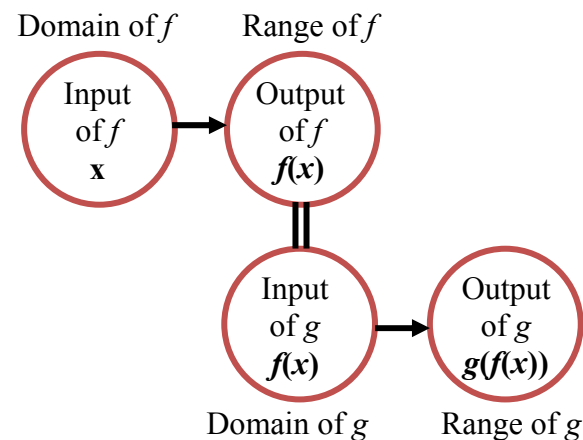
A group of the same or similar elements gathered or occurring closely together on a graph.

coefficient



A numerical factor in a term of an algebraic expression.

composition of functions



The output from the first function becomes the input for the second function. Usually written as $f(g(x))$ or $(f \circ g)(x)$.

compound inequality

$$-1 < x \text{ and } x \leq 3$$
$$x < -1 \text{ or } x \geq 3$$

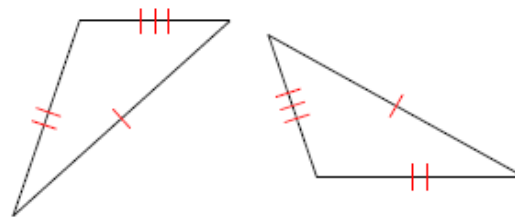
A mathematical sentence with two inequality statements joined by “and” or “or”.

conditional relative frequency

	Dance	Sports	Movies	TOTAL
Women	0.32	0.12	0.16	0.60
Men	0.04	0.20	0.16	0.40
TOTAL	0.36	0.32	0.32	1.00

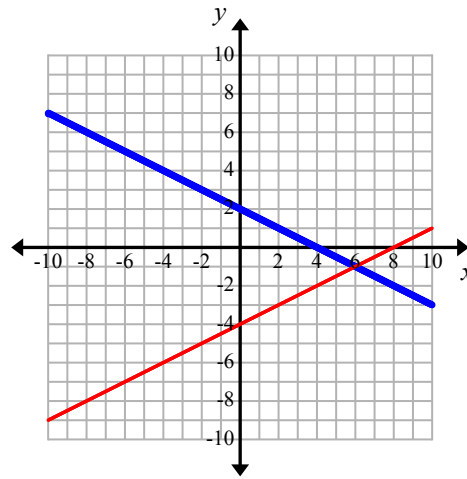
The relative frequencies in the body of the table are called *conditional frequencies* or the *conditional distribution*.

congruent



Two figures are congruent if they have the same shape and size.

consistent system



A system that has at least one solution

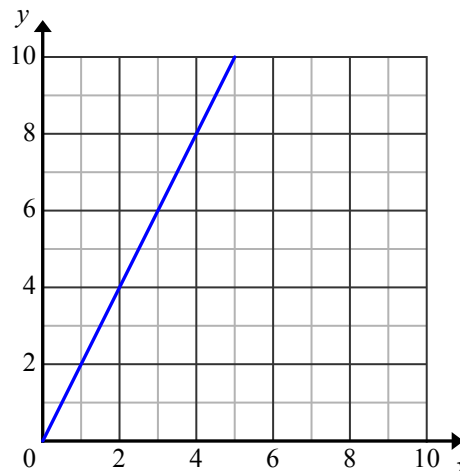
constant percent rate



3.94%
fixed mortgage rate

A percentage rate without any variation in the rate of increase or decrease.

constant rate of change




In linear relationships the constant rate of change is illustrated as the slope of the graph of the equation.

This is so because the change in y divided by the change in x is constant for any two points on the line.

**constant
term**

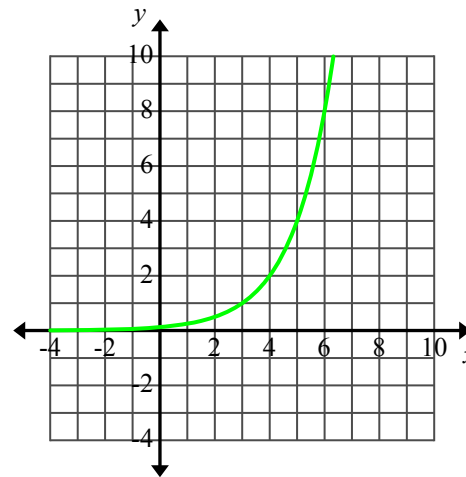
$$5x + 4$$

constant



A term whose value does not change.

**continuous
line or curve**



A line or curve that extends without a break or irregularity.

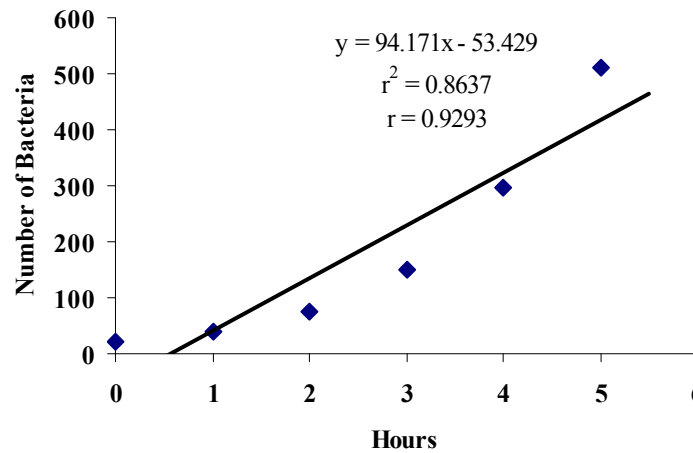
coordinates

$$(3, -5)$$

(x , y)

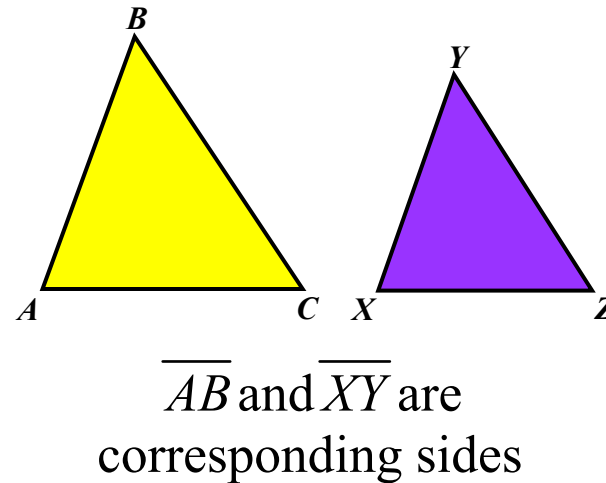
An ordered pair of numbers that identify a point on a coordinate plane.

correlation coefficient



A value that shows the strength of the linear relationship between two variables.

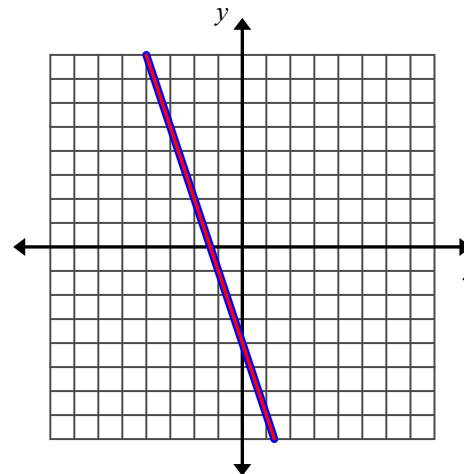
corresponding side



If the relative position of two sides is the same in two figures, then they are called corresponding sides.

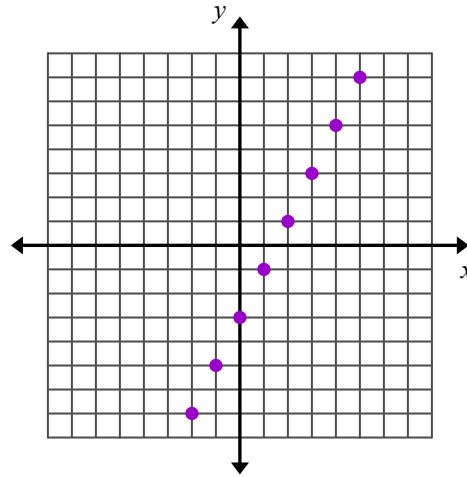
dependent system

$$3x + y = -4$$
$$-6x - 2y = 8$$



A second version of the same equation, whose graphs coincide with each other.

discrete



A type of data is discrete if there are only a finite number of values possible or if there is a space on the number line between each 2 possible values.

distance formula

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

The formula used to find the distance between two points in the xy -plane.

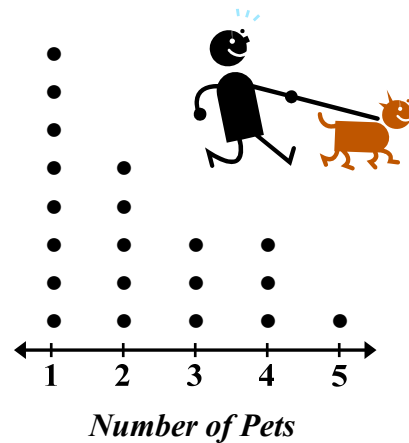
domain

$\{(2, -3), (4, 6), (3, -1), (7, 6), (6, 3)\}$

domain: $\{2, 3, 4, 6, 7\}$

The set of “input” values for which a function is defined.

dot plot



Also known as a line plot. A diagram showing frequency of data on a number line.

elimination

$$2x + y = 1$$

$$3x - y = 19$$

$$5x + 0 = 20 \quad \text{Add the equations to get } x = 4.$$

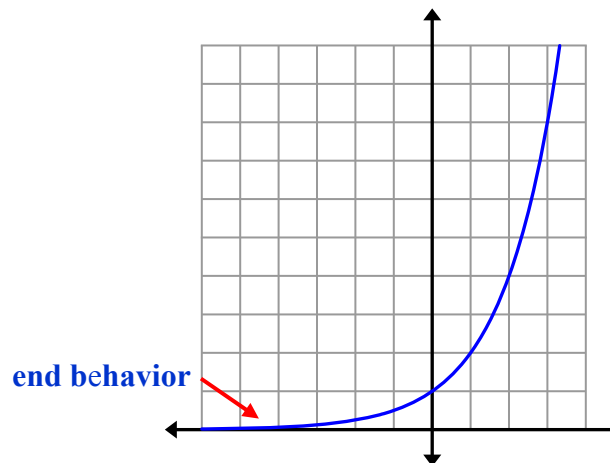
$$3(4) - y = 19 \quad \text{Substitute 4 for } x \text{ in the second equation.}$$

$$12 - y = 19$$

$$y = -7 \quad \text{Solve for } y.$$

A method for solving a system of linear equations. You add or subtract the equations to eliminate a variable.

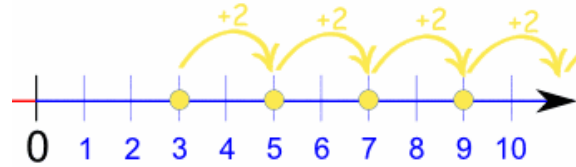
end behavior



The appearance of a graph as it is followed farther and farther in either direction.

equal differences

The sequence $\{3, 5, 7, 9, 11, \dots\}$ is made by adding 2 each time, as so has a common or equal difference of 2.



The common difference between each number in an arithmetic sequence.

equal factors

A population doubles every year, 2^n where two is the factor and n represents time in years.

<i>year</i>	<i>population</i>
1	2
2	4
3	8
4	16
5	32

Four red 'x 2' symbols are positioned to the right of the table, with brackets indicating multiplication by 2 for each row from year 1 to year 5.

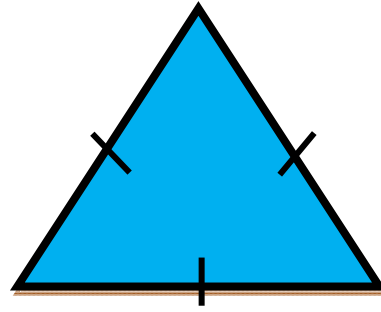
Repeated multiplication by the same number or factor.

equation

$$9x - 8 = 22 - x$$

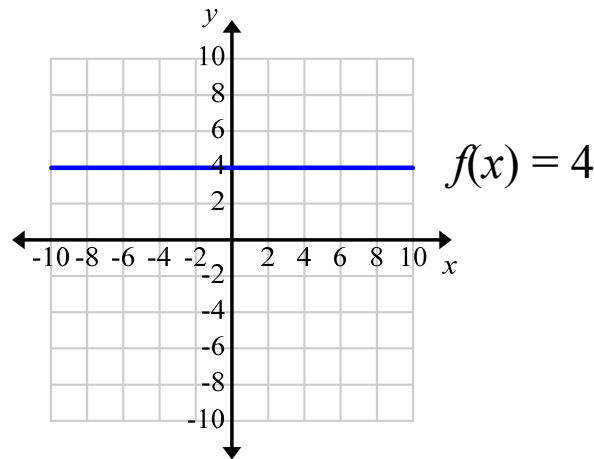
A statement that the values of two mathematical expressions are equal (indicated by the sign =).

equilateral triangle



A triangle whose sides are all the same length.

even function



A function is even if $f(x) = f(-x)$ for all x in the domain of the function. Geometrically, the graph of an even function is symmetric with respect to the y -axis. That means that the graph of the function remains unchanged after reflection about the y -axis.

exponential equation

$$5^x = 125$$

An equation in which a variable occurs in the exponent.

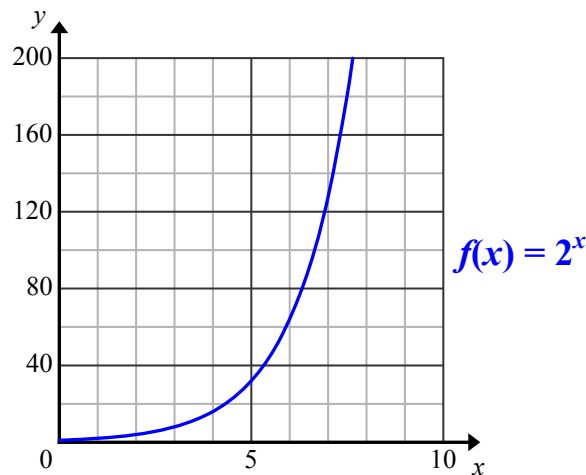
explicit formula

Let $a_n = 2n + 5$ for
positive integers n .

If $n = 7$, then
 $a_7 = 2(7) + 5 = 19$.

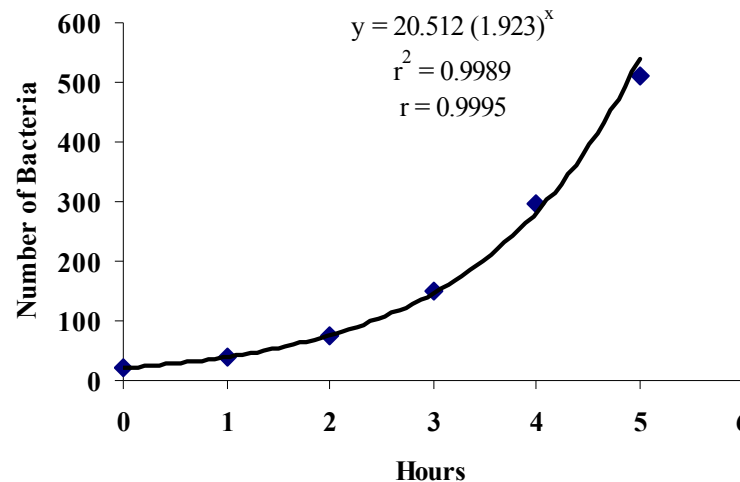
An explicit formula
expresses the n th term of
a sequence in terms of n .

exponential function



A function that repeatedly
multiplies an initial amount by
the same positive number.
You can model all exponential
functions by using $f(x) = ab^x$,
where a is a nonzero constant,
 $b > 0$ and $b \neq 1$.

exponential regression model



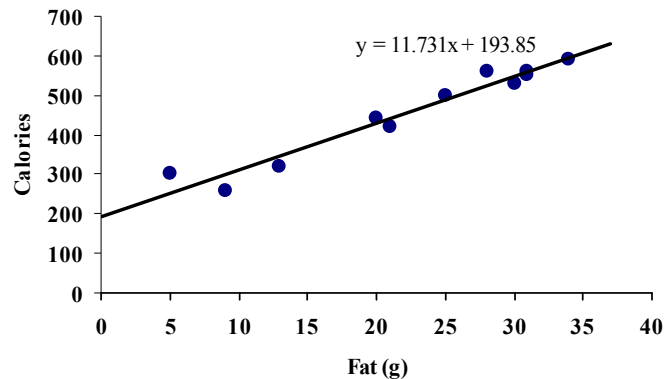
A model that shows
the relationship
between two
variables by fitting
an exponential
function to observed
data.

expression

$$5x + 3$$

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

extrapolate



To *estimate* or infer a value or quantity beyond the known range of data.

Using your regression equation, find the total calories based upon 40 grams of fat?

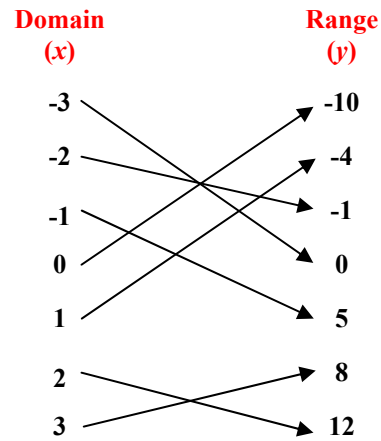
factor

$$2 \cdot x = 2x$$

factors

Any of the numbers or symbols in mathematics that when multiplied together form a product.

function



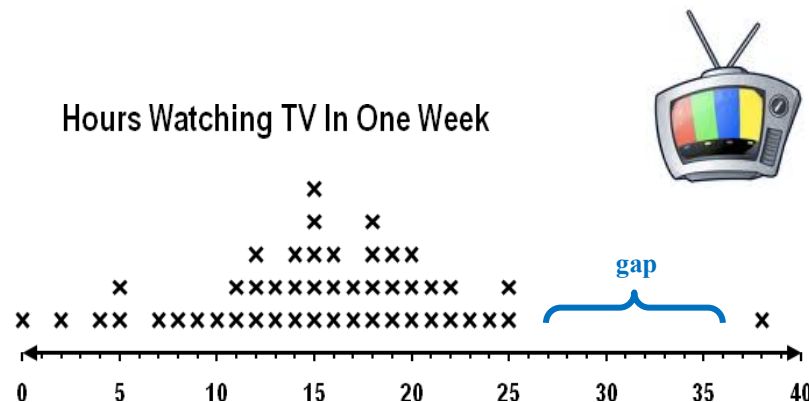
A relation that assigns exactly one value in the range to each value in the domain.

function notation

$$f(x) = 3x - 8$$

To write a rule in function notation, you use the symbol $f(x)$ in place of y .

gap



A place on a graph where no data values are present.

geometric sequence

$$a_n = a_1 \cdot r^{n-1}$$

The first term is a_1 , the common ratio is r , and the number of terms is n .

Example: 2, 6, 18, 54, 162

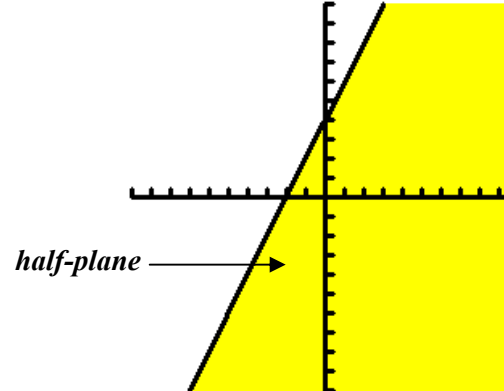
$$a_1 = 2, r = 3, n = 5$$

The explicit formula is

$$a_n = 2 \cdot 3^{n-1}$$

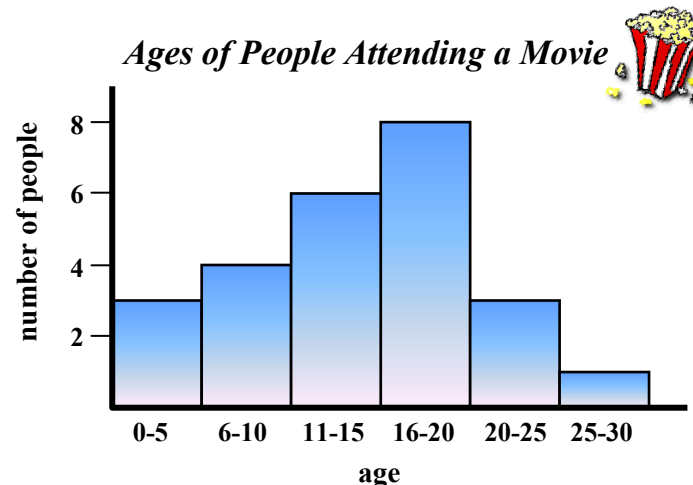
A sequence such as 2, 6, 18, 54, 162 or $3, 1, \frac{1}{3}, \frac{1}{9}, \frac{1}{27}$ which has a constant ratio between terms.

half-plane



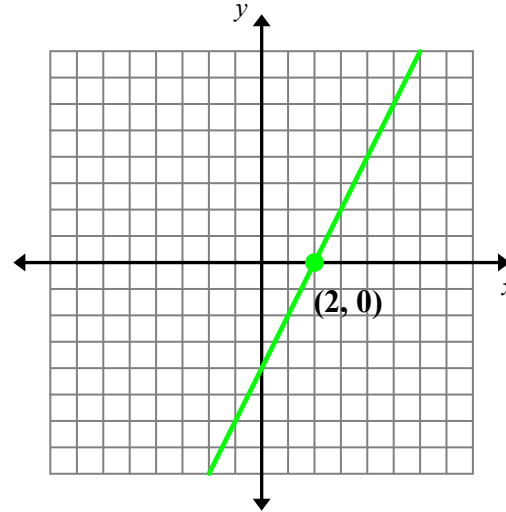
The portion of a plane lying on one side of some line in the plane. The graph of a linear inequality is always a half-plane.

histogram



A bar graph in which the labels for the bars are numerical intervals.

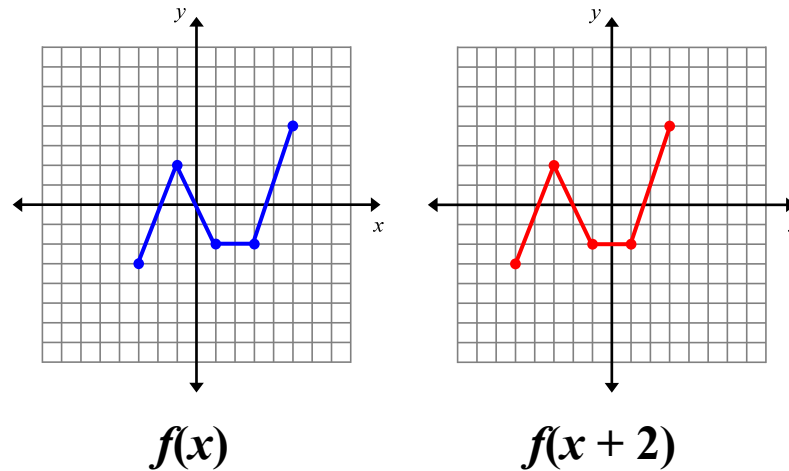
horizontal intercept



Also known as the x -intercept. It can be found by substituting “0” for the variable y in the equation $y = mx + b$.

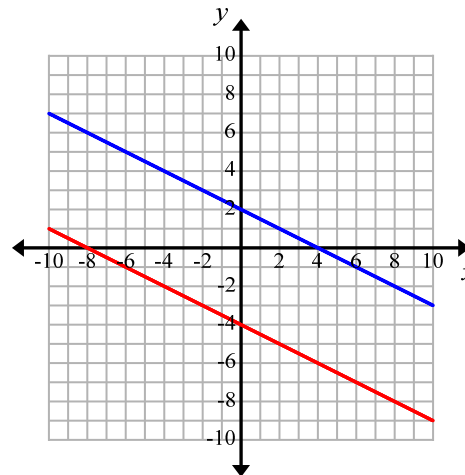
$$0 = m \cdot x + b$$

horizontal translation



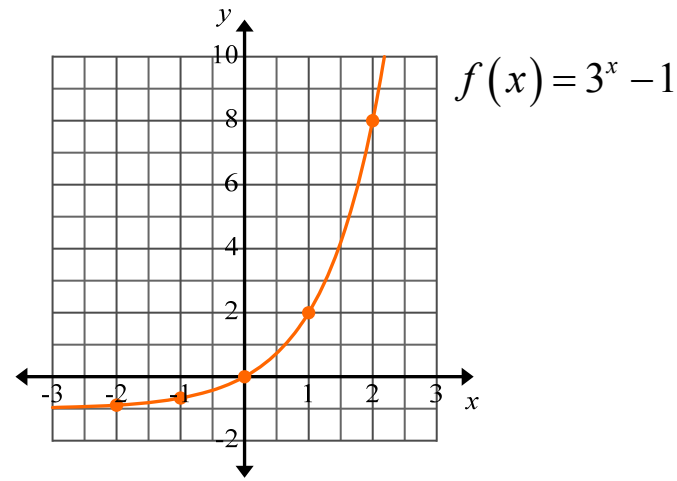
Horizontally translating a graph is equivalent to shifting the parent function left or right in the direction of the x -axis. A graph is translated k units horizontally by moving each point on the graph k units horizontally.

inconsistent system



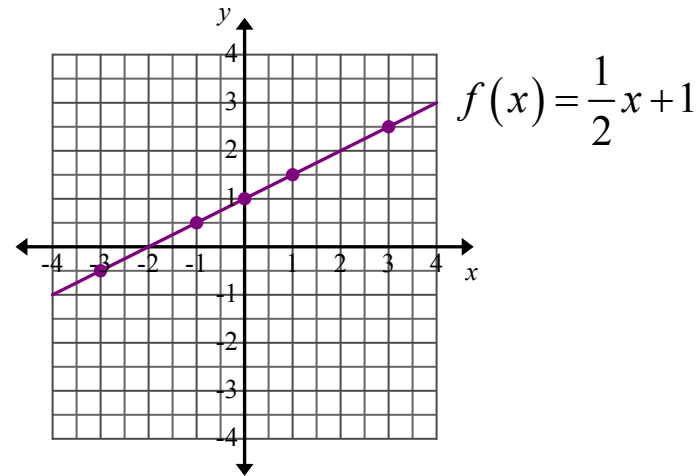
A system that has no solution.

increasing exponentially



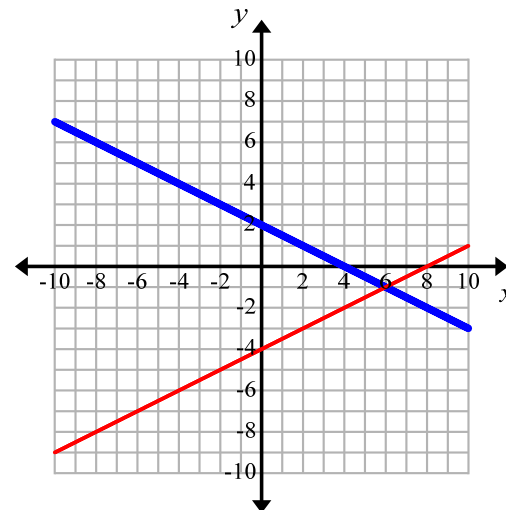
Something is said to *increase exponentially* if its rate of change is expressed using exponents. A graph of such a rate would appear not as a straight line, but as a curve that continually becomes steeper or shallower.

increasing linearly



A function is said to *increase linearly* if its rate of change is constant. That is, the change in y divided by the change in x is constant for any two points on the function. The graph of such a function would appear as a straight line.

independent system



A system of linear equations that has a *unique solution*.

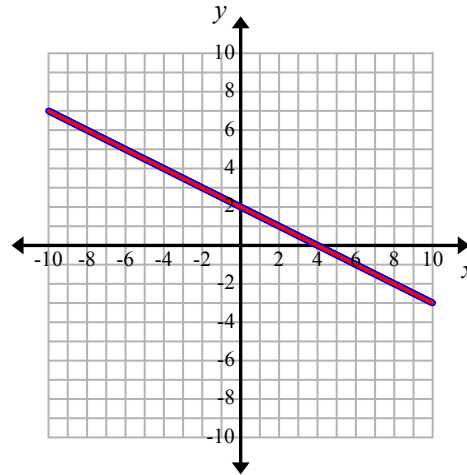
inequality

$$5x + 6 < 20 - 2x$$



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

infinitely many solutions



A system of equations that are dependent and consistent.

input

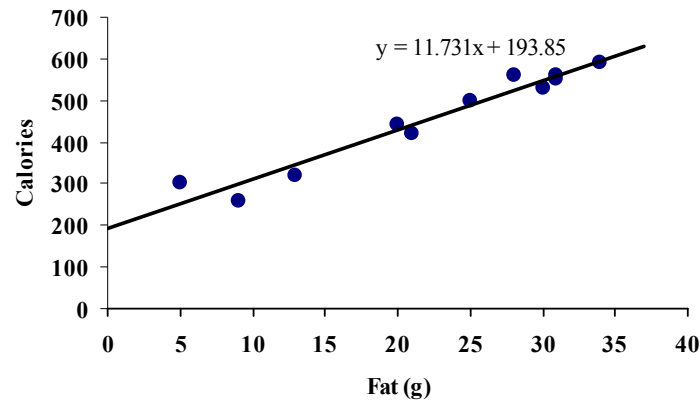
$$f(x) = 2(x + 1) - 7$$

input: $x = 3$

$$\begin{aligned} f(3) &= 2(3 + 1) - 7 \\ &= 2(4) - 7 \\ &= 8 - 7 \\ &= 1 \end{aligned}$$

A value of the independent variable.

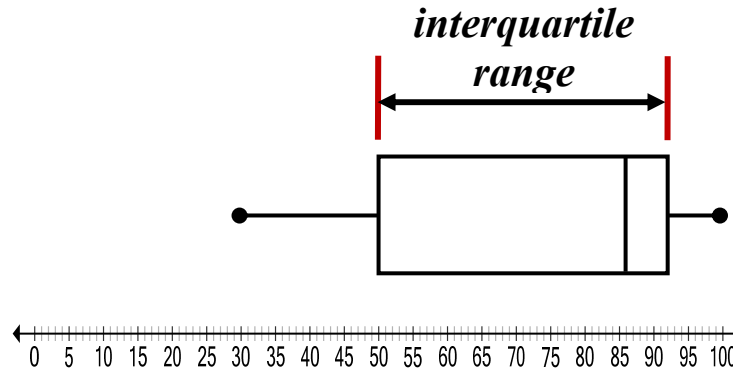
interpolate



Using your regression equation, find the total calories based upon 26 grams of fat?

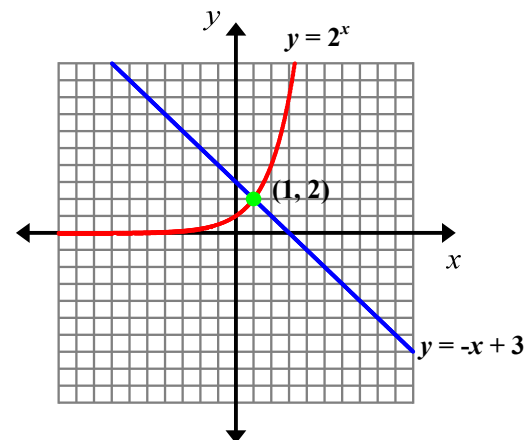
To *estimate* or infer a value or quantity that falls within the range of values plotted on the scatter plot.

interquartile range



The difference between the upper quartile and the lower quartile.

intersection



A point where two or more functions intersect.

interval

- $0 \leq x \leq 1$ is an interval which contains 0 and 1, and all numbers between them
- $(0, 1)$ is an open interval
- $[0, 1]$ is a closed interval

A set of real numbers with the property that any number that lies between two numbers in the set is also included in the set.

interval notation

For $-2 \leq x < 8$, the interval notation is $[-2, 8)$.

A notation for describing an interval on a number line. The interval's endpoints(s) are given, and a parenthesis or bracket is used to indicate whether each endpoint is included in the interval.

joint frequency

	Dance	Sports	Movies	TOTAL
Women	16	6	8	30
Men	2	10	8	20
TOTAL	18	16	16	50

Entries in the body of the table are called *joint frequencies*.

laws of exponents

For all real numbers x and all integers m and n ,

$$x^m \cdot x^n = x^{m+n} \quad \frac{x^m}{x^n} = x^{m-n}, x \neq 0$$
$$(x^n)^m = x^{nm} \quad (xy)^n = x^n y^n$$

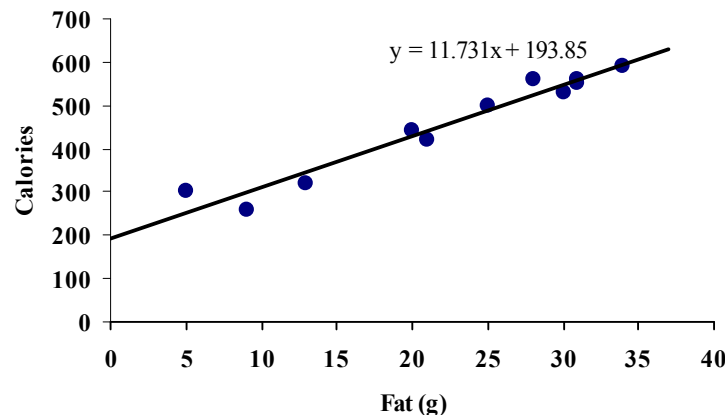
The theorem stating the elementary properties of exponents.

line



A line is the straight path connecting two points and extending beyond the points in both directions.

line of best fit



A line of best fit (or “trend” line) is a straight line that best represents the data on a scatter plot. This line may pass through some of the points, none of the points, or all of the points.

line segment



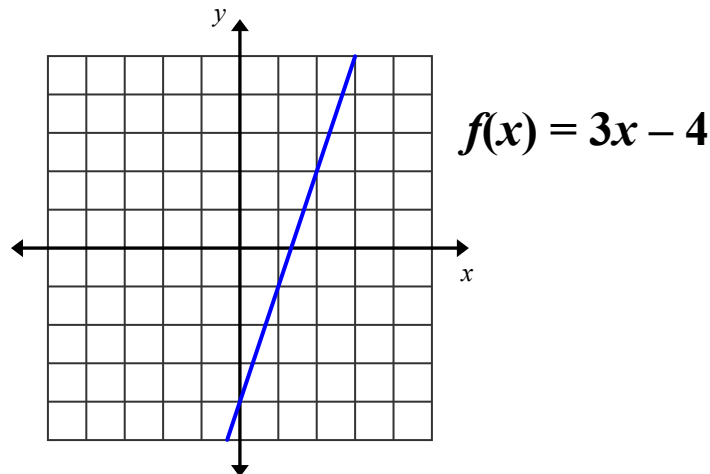
A line segment is a part of a line that is bounded by two end points, and contains every point on the line between its end points.

linear equation

$$2(x - 5) = 3x + 4$$

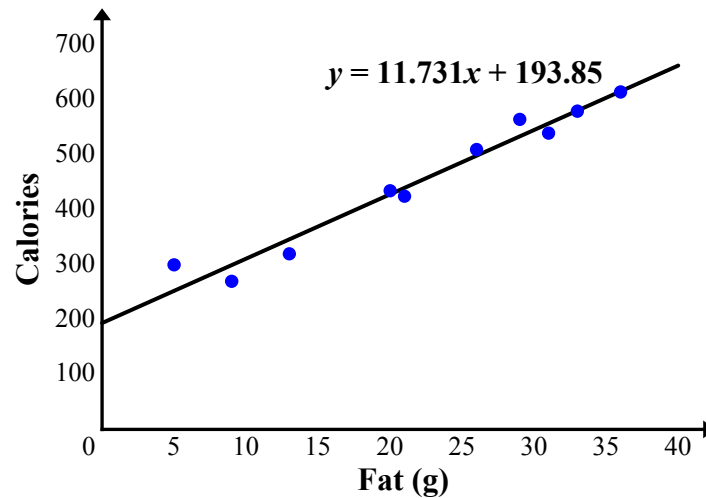
An algebraic equation in which each term is either a constant or the product of a constant and (the first power of) a single variable.

linear function



Functions that are a first-degree polynomial of one variable. The graph of the function is a line.

linear regression model



A model that shows the relationship between two variables by fitting a linear function to observed data.

marginal frequency

	Dance	Sports	Movies	TOTAL
Women	16	6	8	30
Men	2	10	8	20
TOTAL	18	16	16	50

The total row and total column report the marginal frequencies or marginal distribution.

mean

Data Set: 14, 21, 27, 33, 45, 46, 52

Step 1:

$$14 + 21 + 27 + 33 + 45 + 46 + 52 = 238$$

Step 2:

$$238 \div 7 = 34 \leftarrow \text{mean}$$

The sum of a set of numbers divided by the number of elements in the set. (A type of average)

median

14, 21, 27, **33**, 45, 46, 52



median

The middle number of a set of numbers when the numbers are arranged from least to greatest, or the mean of two middle numbers when the set has two middle numbers.

numerical (quantitative) data

Counting the number of students getting on a school.

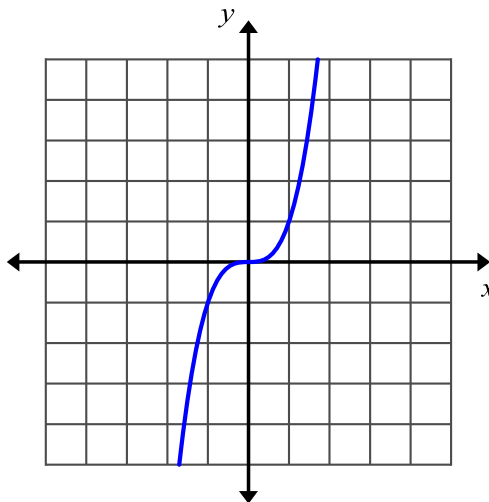


Numerical/quantitative data are numbers in context.

Examples:

- there are 43 flies on the ceiling
- there are 5 pieces of gum in a pack
- there are 8 planets in the solar system

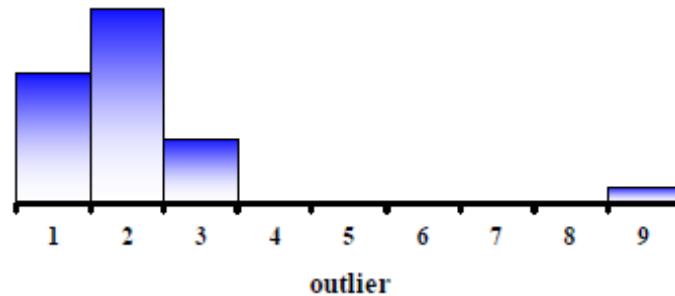
odd function



A function is odd if $-f(x) = f(-x)$ for all x in the domain of the function, or $-f(x) + f(-x) = 0$. Geometrically, the graph of an odd function has rotational symmetry with respect to the origin.

outlier

Looking back at Bob's points scored, any outliers lie outside the interval (3.25, 17.25).



Extreme values that differ greatly from the other observations.

As a rule, an extreme value is considered to be an outlier if it is at least 1.5 *interquartile ranges* below the lower quartile (Q1), or at least 1.5 *interquartile ranges* above the upper quartile (Q3).

output

$$f(x) = 2(x + 1) - 7$$

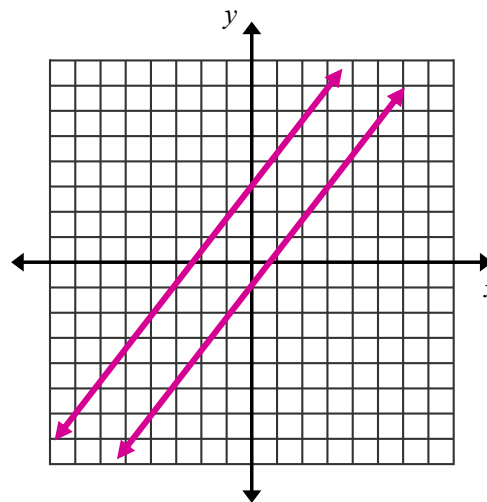
input: $x = 3$

$$\begin{aligned} f(3) &= 2(3 + 1) - 7 \\ &= 2(4) - 7 \\ &= 8 - 7 \\ &= \mathbf{1} \end{aligned}$$

output is **1**

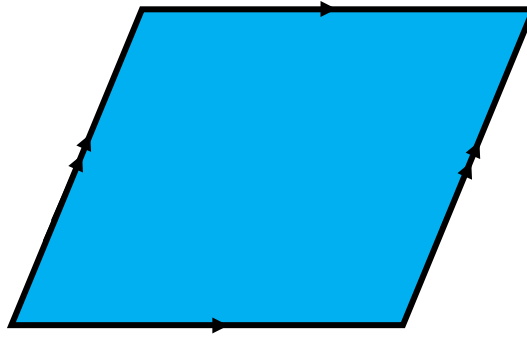
A value of the dependent variable.

parallel lines



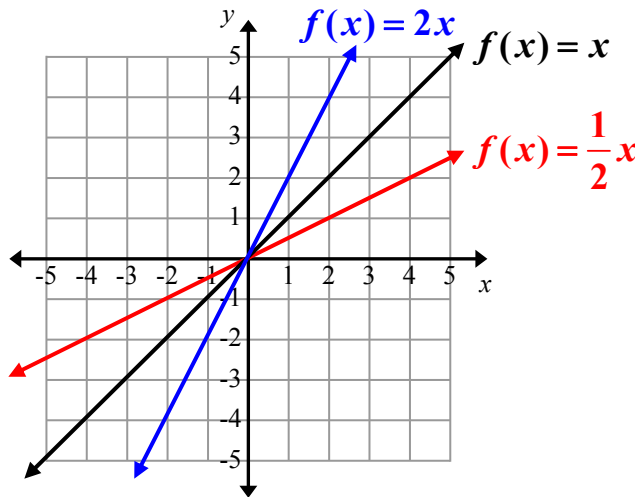
Two lines in the same plane that never intersect. Parallel lines have the same slope.

parallelogram



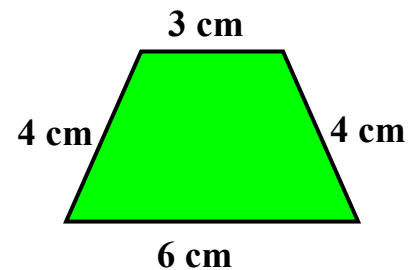
A quadrilateral with two pairs of parallel and congruent sides.

parameter



A constant or variable term in a function that determines the specific form of the function but not its general nature, as a in $f(x) = ax$, where a determines only the slope of the line described by $f(x)$.

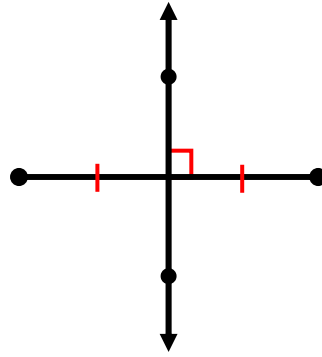
perimeter



$$\begin{aligned} \text{Perimeter} &= 4\text{cm} + 6\text{cm} + 4\text{cm} + 3\text{cm} \\ &= 17\text{cm} \end{aligned}$$

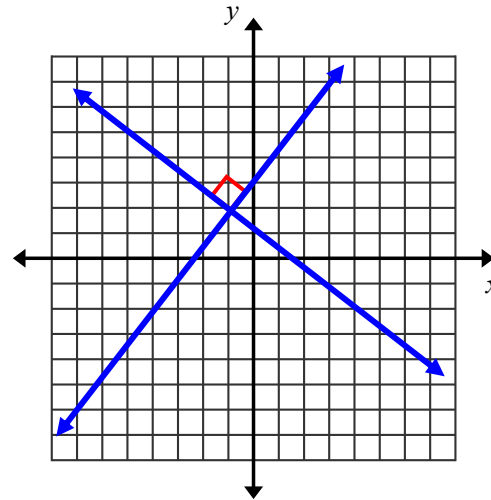
The continuous line forming the boundary of a closed geometric figure.

perpendicular bisector of a segment



A line, segment, or ray that is perpendicular to the segment A line, segment, or ray that is perpendicular to the segment at its midpoint.

perpendicular lines



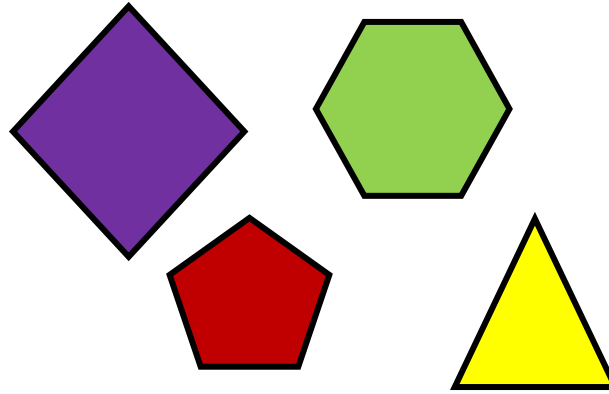
Lines that intersect to form right angles. Two lines are perpendicular if the product of their slopes is -1 .

point



In Euclidean geometry, a point is undefined. You can think of a point as a location. A point has no size.

polygon



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

Pythagorean Theorem

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

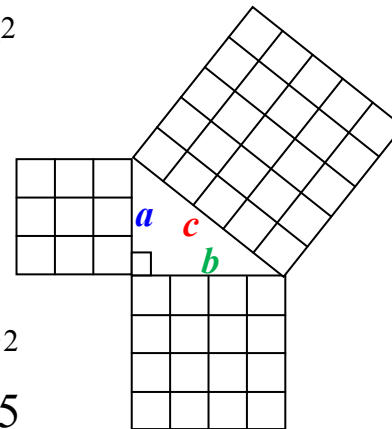
$$a = 3$$

$$b = 4$$

$$c = 5$$

$$3^2 + 4^2 = 5^2$$

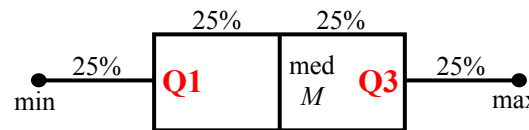
$$9 + 16 = 25$$



In any right triangle, the sum of the squares of the length legs (a and b) is equal to the square of the length of the hypotenuse c .

quartile

first quartile (Q1)
third quartile (Q3)

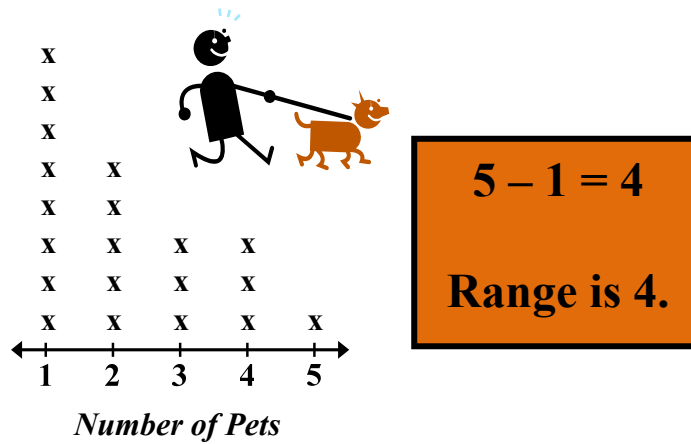


For a data set with median M , the first quartile is the median of the data values less than M .

For a data set with median M , the third quartile is the median of the data values greater than M .

range

(statistics)



The difference between the greatest number and the least number in a set of numbers.

range

$\{(2, -3), (4, 6), (3, -1), (7, 6), (6, 3)\}$

range: $\{-3, 6, -1, 6, 3\}$

The set of “output” values for which a function is defined.

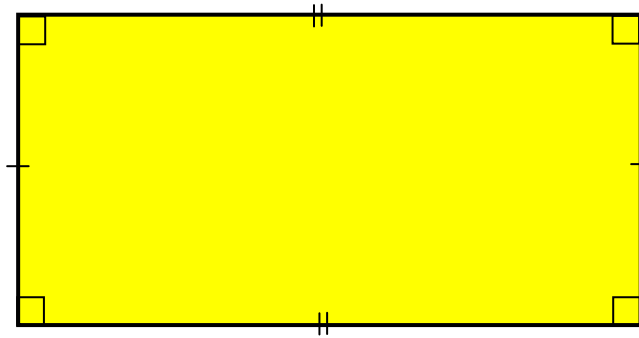
rate of change

Input	Output
1	25
3	75
5	125
7	175
9	225

$$\frac{\text{Change in the output}}{\text{Change in the input}} = \frac{125 - 75}{5 - 3} = \frac{50}{2} = 25$$

The ratio of the change in the output value and change in the input value of a function.

rectangle



A quadrilateral with two pairs of congruent, parallel sides and four right angles.

recursive

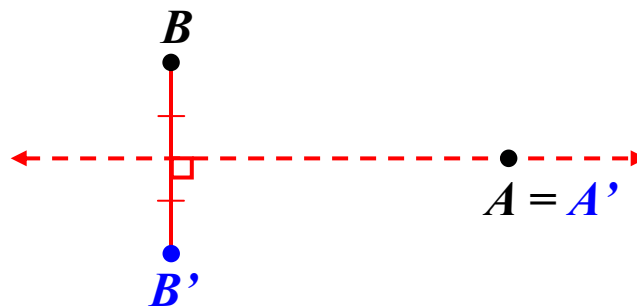
2, 5, 8, 11, 14...

$$a_n = a_{n-1} + d$$

$$a_n = a_{n-1} + 3$$

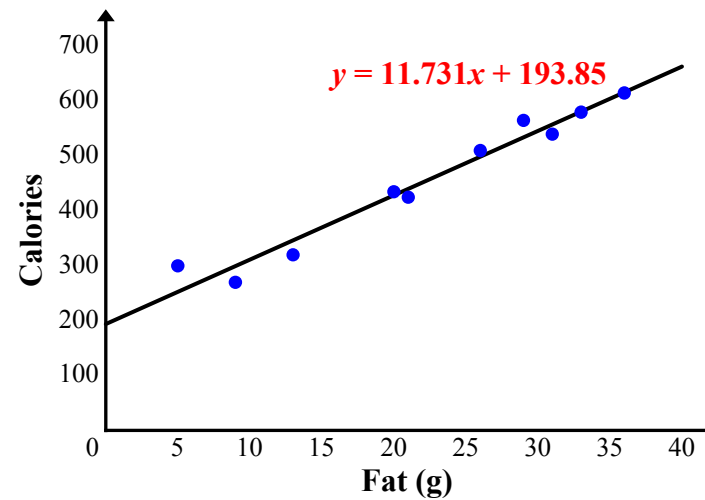
Pertaining to or using a rule or procedure that can be applied repeatedly.

reflection



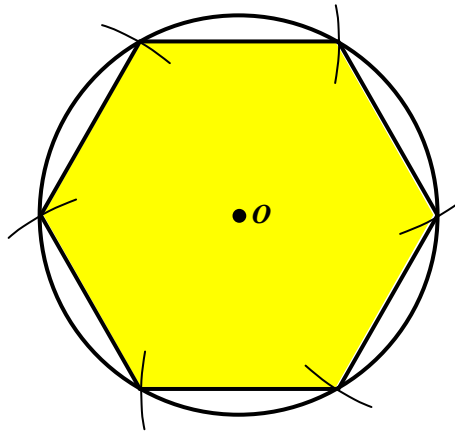
A transformation such that if a point A is on line r , then the image of A is itself, and if a point B is not on line r , then its image B' is the point such that r is the perpendicular bisector of $\overline{BB'}$.

regression equation



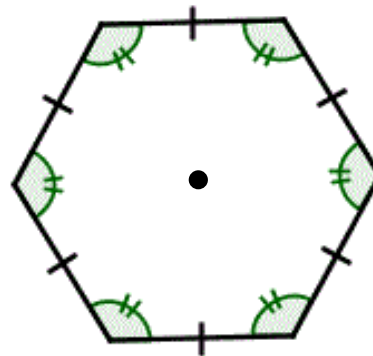
The equation representing the relation between selected values of one variable (x) and observed values of the other (y); it permits the prediction of the most probable values of y .

regular hexagon in a circle



A regular hexagon that has been inscribed in a circle.

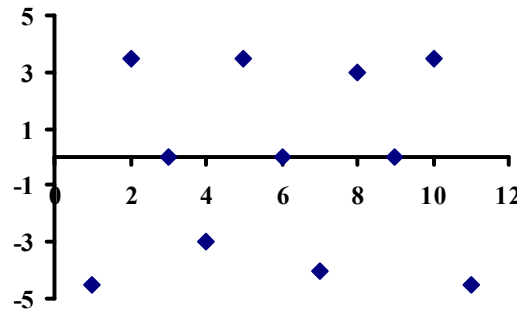
regular polygon



A polygon that is both equilateral and equiangular. Its center is the point that is equidistant from its vertices.

residuals

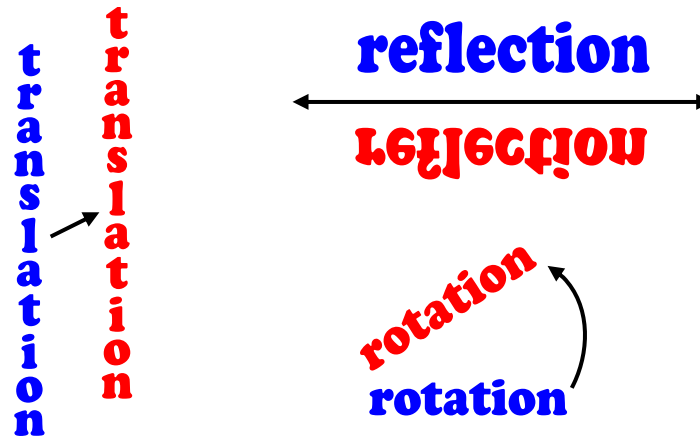
The residual plot shows a random pattern indicating a good fit for a linear model.



Residual (or error) represents unexplained variation after fitting a regression model. The difference between the observed value of the dependent variable (y) and the predicted value (\hat{y}) is called the **residual** (e).

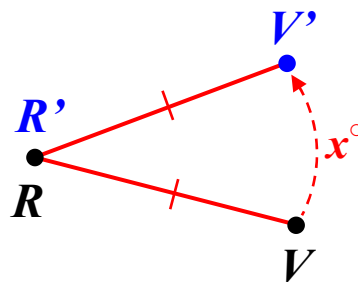
$$e = y - \hat{y}$$

rigid motion



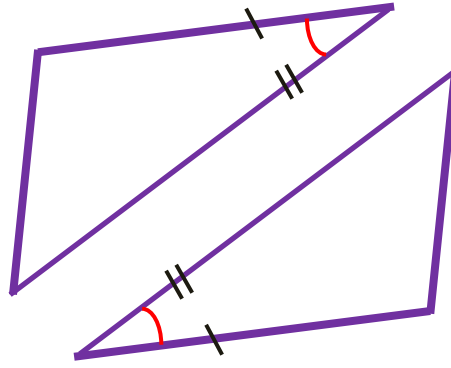
A transformation in the plane that preserves distance and angle measure.

rotation



A transformation such that for any point V , its image is the point V' , where $RV = RV'$ and $m\angle VRV' = x^\circ$. The image R itself. The positive number of degrees x that a figure rotates is the *angle of rotation*.

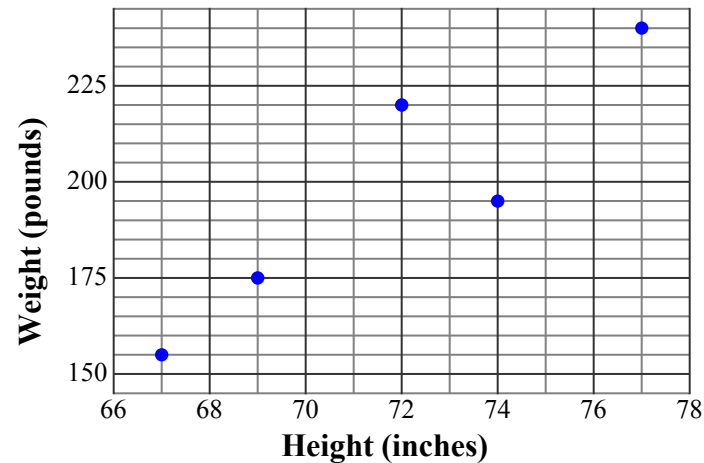
SAS



SAS (Side-Angle-Side)

If two sides and the included angle of a triangle are congruent to two sides and the included angle of another triangle, then the two triangles are congruent.

scatter plot



A graphic tool used to display the relationship between two quantitative (numerical) variables.

segment



Part of a line that is bounded by two end points, and contains every point on the line between its end points.

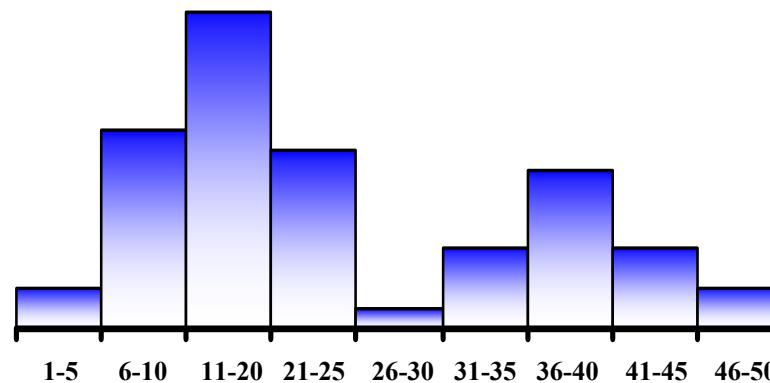
set builder notation

$$\{x \mid x \in \mathbb{R} \text{ and } x > 0\}$$

This is read as “the set of all values x such that x is a real number and x is greater than 0.

A notation used to describe the elements of a set.

shape



The shape of a distribution is described by symmetry, number of peaks, direction of skew, or uniformity.

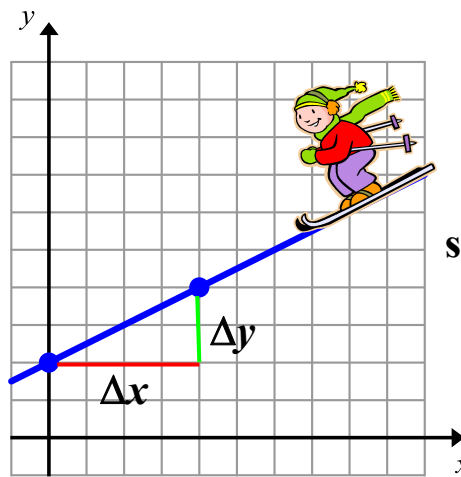
simultaneous equations

$$2x - 5y = 1$$

$$3x + 5y = 14$$

A set of equations in two or more variables for which there are values that can satisfy all the equations simultaneously.

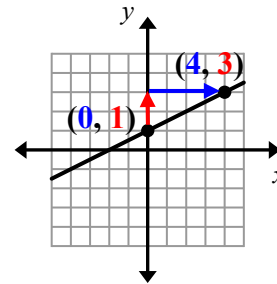
slope



$$\text{slope} = \frac{\Delta y}{\Delta x}$$

Slope describes steepness, incline, or grade of a line. A higher slope value indicates a steeper incline. The slope of a line is the ratio of the change in y over the change in x .

slope formula



$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - 1}{4 - 0} = \frac{2}{4} = \frac{1}{2}$$

The formula used to find the slope of a line. Slope is often represented with the variable m .

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

$$m = \frac{y_2 - y_1}{x_2 - x_1}, \text{ where } x_2 - x_1 \neq 0$$

solution

Examples:

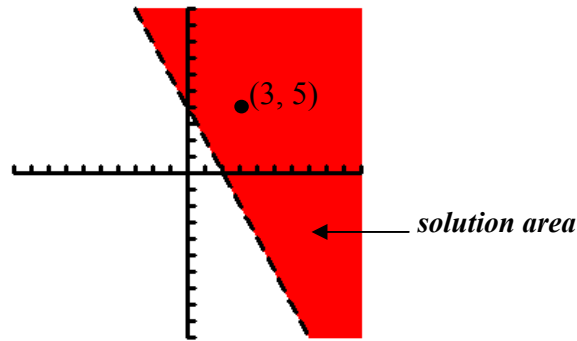
- The only solution for the equation $2x - 15 = -3$ is $x = 4$.
- The solutions which satisfy the inequality $2x + 3 \leq 7$ are all values which are less than or equal to x , denoted $x \leq 2$, or $(-\infty, 2]$.



Any and all value(s) of the variable(s) which; satisfies an equation, or inequality.

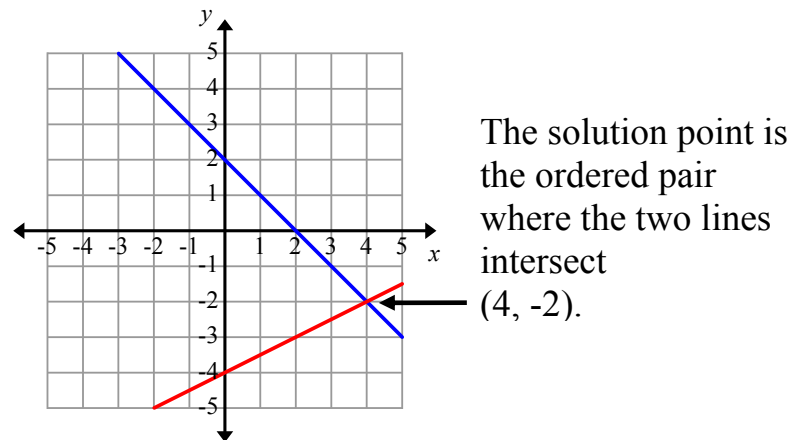
solution area

Example: $(3, 5)$ is a solution.



A value or ordered pair is in the *solution area* of an inequality if the value or values from the ordered pair make the inequality true when substituted into the inequality.

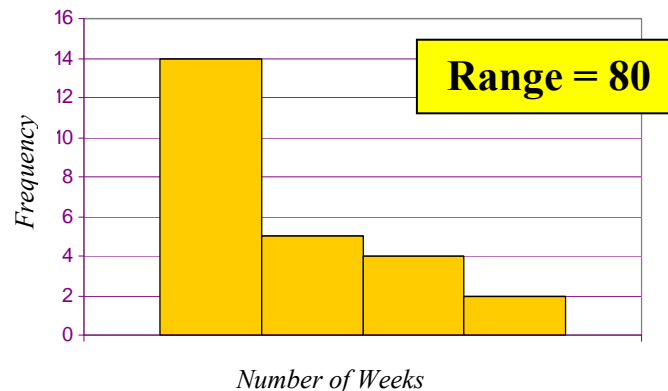
solution point



A solution point or intersection; is a single point where two lines meet or cross each other.

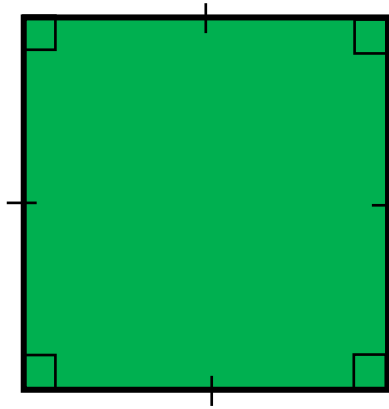
spread

Number of Weeks on the Top 200 Chart



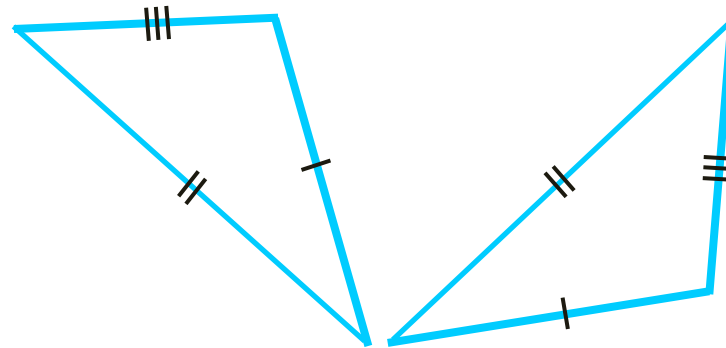
A measure of how much a collection of data is spread out. Commonly used types include range, quartiles, and standard deviation. (Also known as measures of variation or dispersion.)

square



A parallelogram with four equal angles AND four equal sides.

SSS

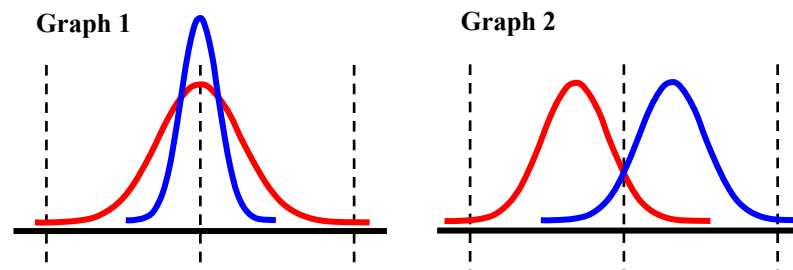


SSS (Side-Side-Side)

If the three sides of one triangle are congruent to the three sides of another triangle, then the two triangles are congruent.

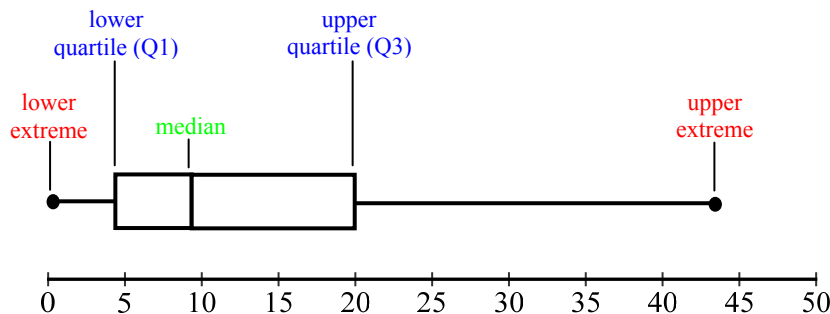
standard deviation

Example: In *Graph 1* two sets of data are being compared. They have the same mean, but the standard deviations are different. The red distribution has a greater spread than the blue distribution. In *Graph 2* the two distributions have about the same spread/standard deviation, but different means.



A numerical value used to indicate how widely the individual data in a group vary.

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.

substitution

$$y = 3x + 2 \text{ and } 4x + 2y = -6$$

- ① Substitute for y and solve for x . ② Substitute for x and solve for y .

$$4x + 2(3x + 2) = -6$$

$$4x + 6x + 4 = -6$$

$$10x + 4 = -6$$

$$\quad -4 \quad -4$$

$$\hline 10x = -10$$

$$10 \quad 10$$

$$x = -1$$

$$y = 3(-1) + 2$$

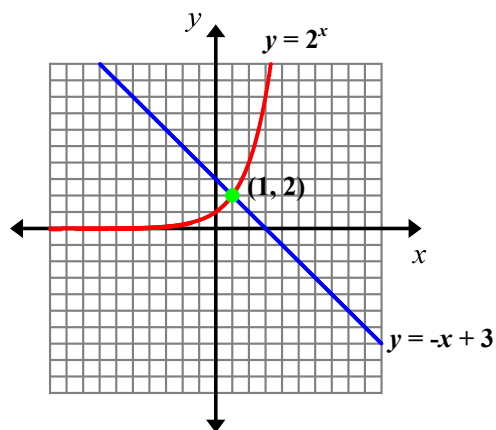
$$y = -3 + 2$$

$$y = -1$$

Solution: $(-1, -1)$

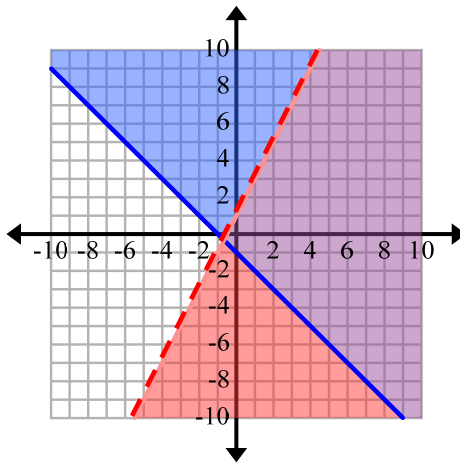
A method for solving a system of linear equations. It is used to eliminate one of the variables by isolating one variable in one equation, and substituting the resulting expression for that variable in the other equation.

system of equations



A system of equations is two or more equations with the same variables, graphed on same coordinate plane.

system of linear inequalities



A system of inequalities is two or more inequalities with the same variables, graphed on the same coordinate plane. The set of solutions of a system of linear inequalities corresponds to the intersection of the half-planes defined by individual inequalities.

table of values

x	$f(x)$
0	1
1	4
2	7
3	10
4	13
5	16
6	19

A list of numbers that are used to substitute one variable, such as within an equation of a line or other functions, to find the value of the other variable.

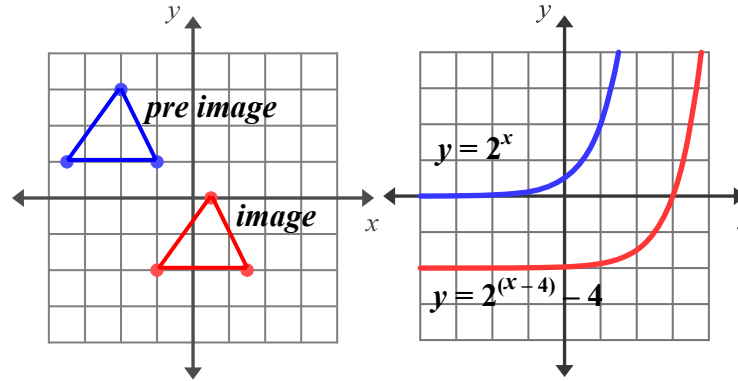
term

$$3x - 5 = -7x + 10$$

term

A mathematical expression which may form a separable part of an equation, a series, or another expression.

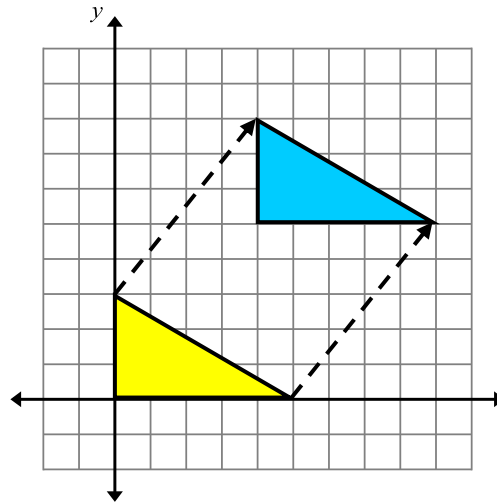
transformation



To change the position of a shape or function on a coordinate plane. There are three basic transformations:

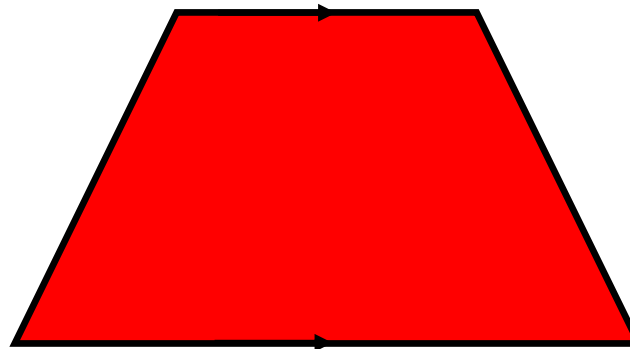
translations
reflections
rotations

translation



A transformation that moves points the same distance in the same direction.

trapezoid



A quadrilateral with only one pair of parallel sides.

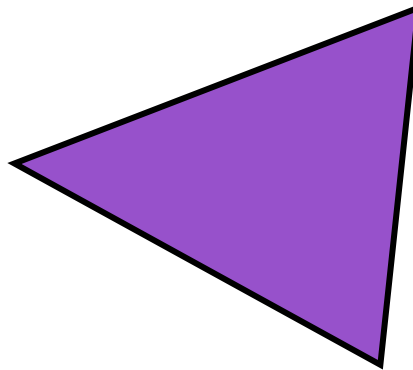
trend

Males vs. Females in the US Military

Although there are still more males than females in the Armed Forces, the *trend* is that the gap is closing. However, there is no association between the number of females and the number of males in the US Military. That is, we cannot draw any conclusions about a relationship between the two.

A change (positive, negative or constant) in data values over time.

triangle



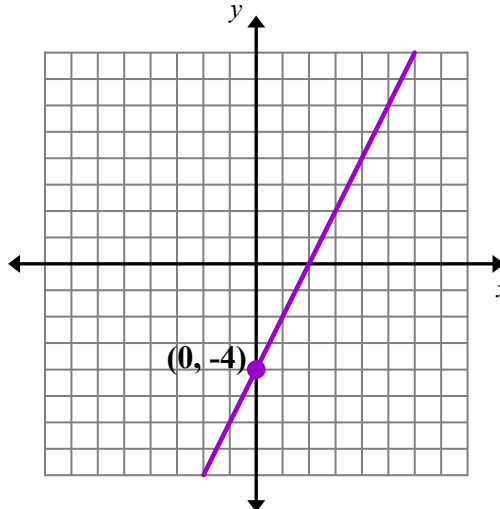
A polygon with three sides and three angles.

two-way frequency table

	Dance	Sports	Movies	TOTAL
Women	16	6	8	30
Men	2	10	8	20
TOTAL	18	16	16	50

A tool used for examining relationships between categorical variables.

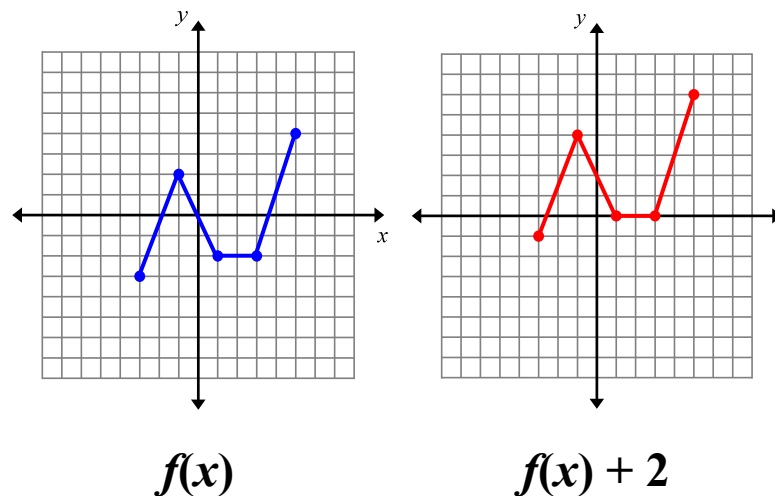
vertical intercept



Also known as the y -intercept. It can be found by substituting “0” for the variable x in the equation $y = mx + b$.

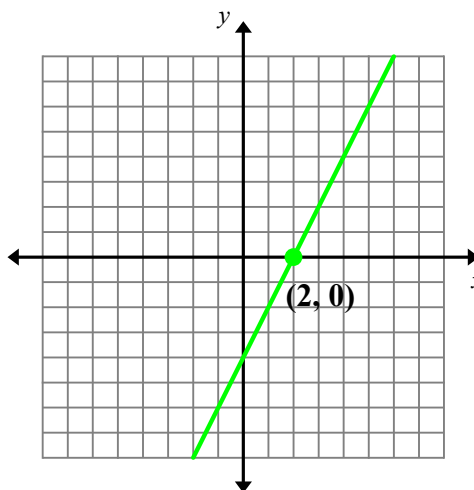
$$y = m \cdot 0 + b$$

vertical translation



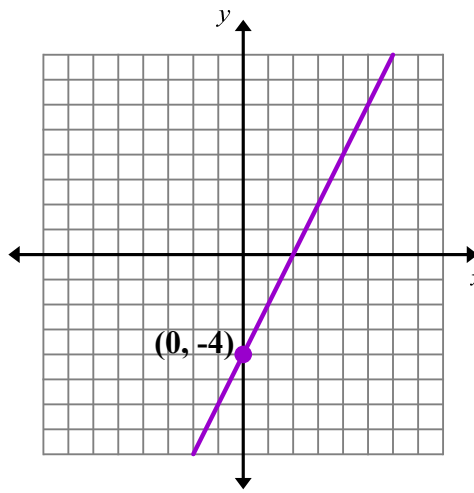
Vertically translating a graph is equivalent to shifting the parent function up or down in the direction of the y -axis. A graph is translated k units vertically by moving each point on the graph k units vertically.

x -intercept



The point at which a function crosses the x -axis.

***y*-intercept**



The point at which a function crosses the *y*-axis.