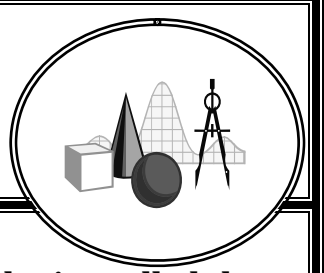
Grade 4 and Grade 5

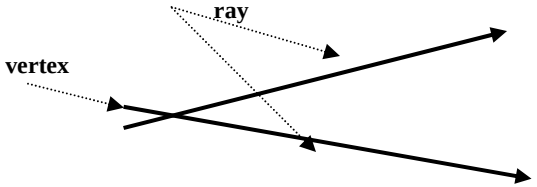
angle



Definition and illustration (if applicable):

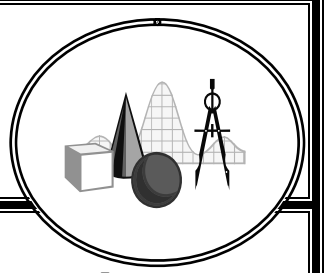
a geometric figure formed by two rays called sides having a common endpoint called the vertex

Angles are classified by their measures as right angles (exactly 90°); acute angles (less than 90°), and obtuse angles (greater than 90° and less than 180°).



Associated terms:

Associative Property of Addition



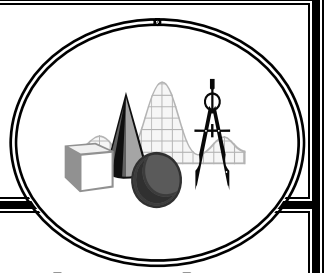
Definition and illustration (if applicable):

Changing the groupings of three or more addends does not change the sum.

$$(a + b) + c = a + (b + c)$$
$$(2 + 6) + 5 = 2 + (6 + 5)$$

Associated terms: Associative Property of Multiplication

Associative Property of Multiplication



Definition and illustration (if applicable):

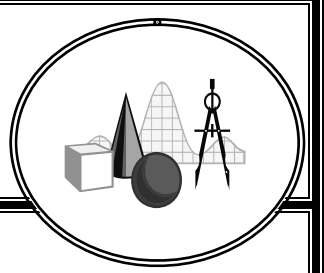
Changing the groupings of three or more factors does not change the product.

$$a\,(bc) = (ab)\,c$$

$$5 \times (6 \times 7) = (5 \times 6) \times 7$$

Associated terms:

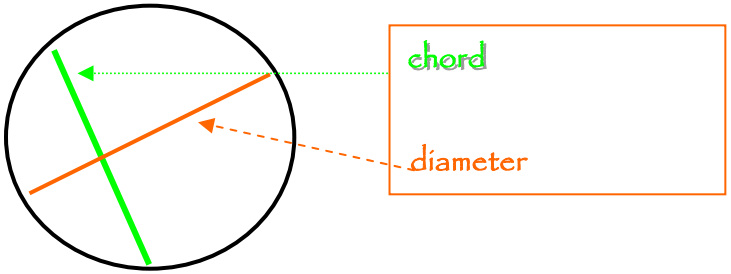
chord



Definition and illustration (if applicable):

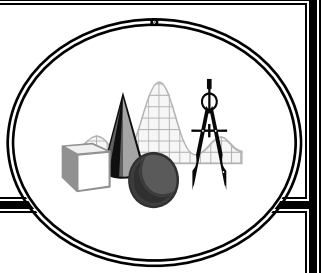
a line segment whose endpoints lie on a circle

a diameter is a chord that passes through the center of the circle



Associated terms: diameter, circle

circumference

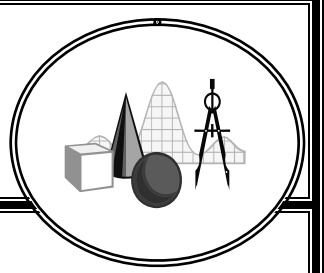


Definition and illustration (if applicable):

the distance around a circle

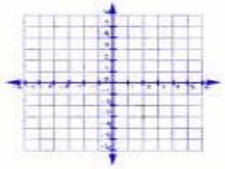
Associated terms:

coordinate plane



Definition and illustration (if applicable):

a grid formed by two axes that intersect at the origin
The axes divide the coordinate plane into four quadrants.
origin--intersection of the horizontal and vertical axes in the coordinate plane described by the ordered pair (0, 0)

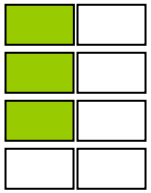


Associated terms: quadrant

denominator

Definition and illustration (if applicable):

the number of same-size parts in a whole or set



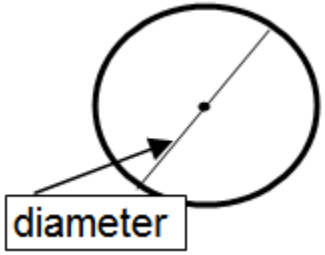
$$\frac{\text{Numerator} \Rightarrow 3}{\text{Denominator} \Rightarrow 8}$$

Associated terms:

diameter

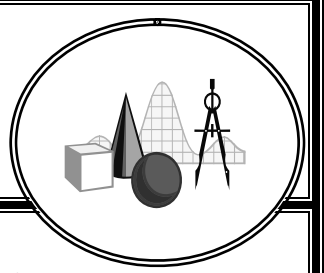
Definition and illustration (if applicable):

a chord that passes through the center of a circle



Associated terms:

elapsed time

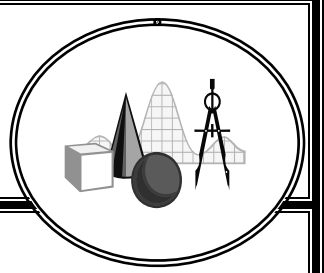


Definition and illustration (if applicable):

the amount of time that passes between two points in time

Associated terms:

equally likely

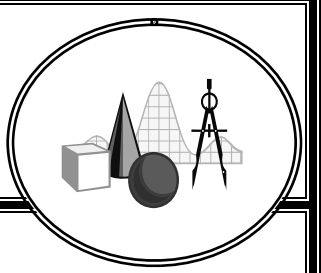


Definition and illustration (if applicable):

two events with the same probability of occurrence

Associated terms:

expression



Definition and illustration (if applicable):

an mathematical phrase that represents a quantity; may contain variables, numbers, and/or operations

Associated terms:

factor

Definition and illustration (if applicable):

a number that is multiplied by another number to find a product

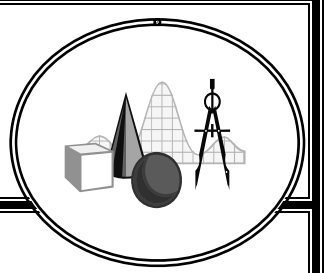
There are 3 groups of 5 flowers.

3 x 5 = 15

factors product

Associated terms:

frequency



Definition and illustration (if applicable):

the number of times an outcome occurs

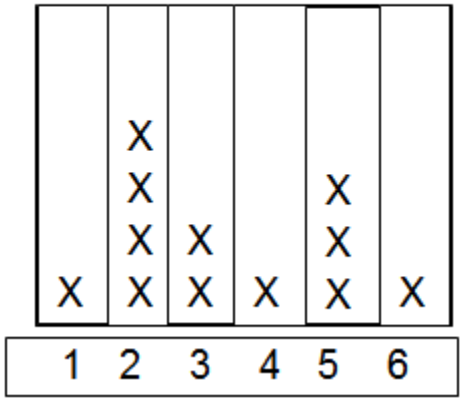
Associated terms: probability

line plot

Definition and illustration (if applicable):

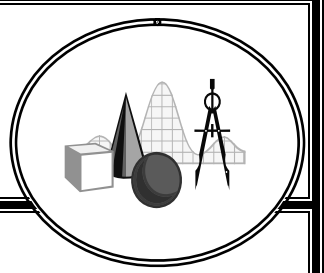
A line plot shows the spread of data and each piece of data is represented by an x

Number of Pets of Mrs. Willis' Students



Associated terms: graphical representations, bar graphs, line graph, stem-and-leaf plot

greatest common factor



Definition and illustration (if applicable):

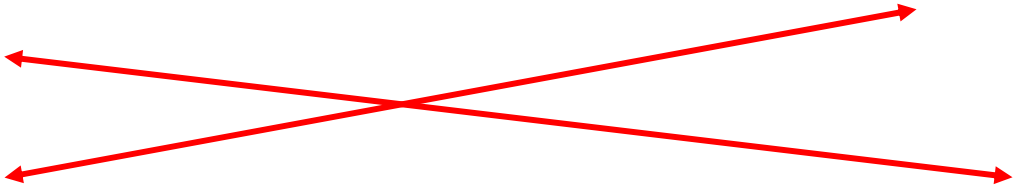
the largest number that divides evenly into two or more numbers

Associated terms:

intersecting lines

Definition and illustration (if applicable):

lines that meet or cross in exactly one point

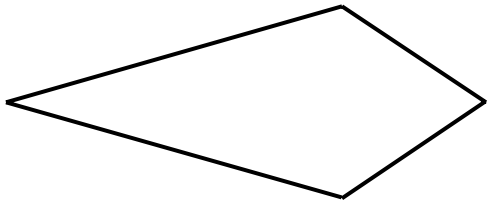


Associated terms:

kite

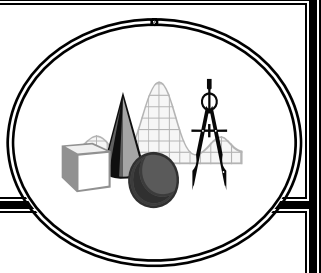
Definition and illustration (if applicable):

a quadrilateral with two pairs of adjacent sides congruent but not four congruent sides



Associated terms:

least common denominator

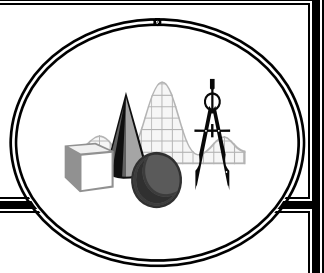


Definition and illustration (if applicable):

least common multiple of two or more denominators

Associated terms: least common multiple

least common multiple

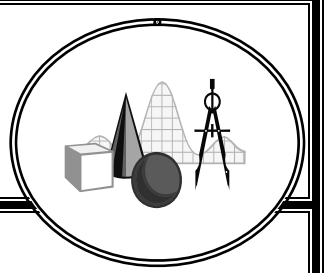


Definition and illustration (if applicable):

the smallest multiple that each of two or more numbers share

Associated terms:

likelihood (of an event)



Definition and illustration (if applicable):

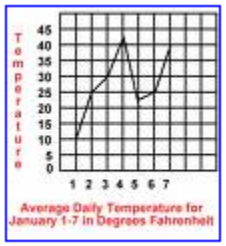
the chance or probability that an event occurs

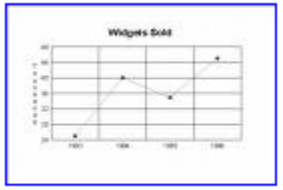
Associated terms: probability

line graph

Definition and illustration (if applicable):

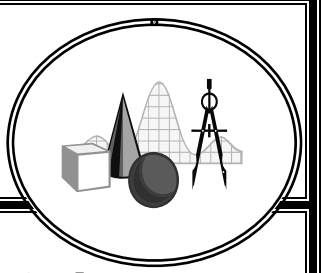
a graph using line segments to connect the graphed data points





Associated terms: graphical representations, line plot, bar graph, stem-and-leaf plot

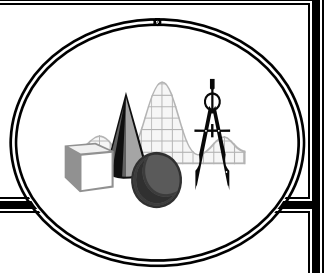
mean



Definition and illustration (if applicable):
a measure of central tendency; the arithmetic average; a mathematical representation of the typical value of a series of numbers, computed as the sum of all the numbers in the series divided by the count of all numbers in the series.
Example:
Suppose you wanted to know what the arithmetic mean of a stock's closing price was over the past week. If during the five-day week the stock closed at $14.50, $14.80, $15.20, $15.50, and then $14.00, its arithmetic mean closing price would be equal to the sum of the five numbers ($74.00) divided by five, or $14.80.

Associated terms: statistics, mode. median

median



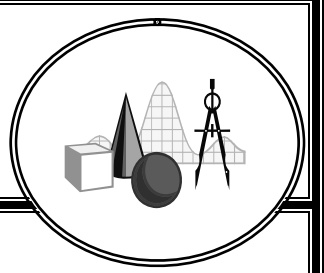
Definition and illustration (if applicable):

a measure of central tendency; in a set of ordered data, the middle value
If the data are shown with a histogram the "mode" is simply the value which corresponds to the highest point(s) on the curve.

Associated terms: mean, mode, statistics, range

Grade 4 and Grade 5

metric measurement system



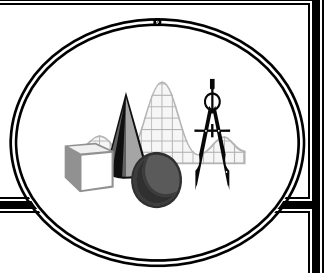
Definition and illustration (if applicable):

a system of measurement based on multiples of 10; basic units are meter (length), gram (mass), and liter (volume or capacity)

Associated terms:

Grade 4 and Grade 5

mode



Definition and illustration (if applicable):

a measure of central tendency; the value(s) that occurs most often

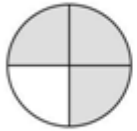
Associated terms: statistics, mean, median, range

numerator

Definition and illustration (if applicable):

a representation of the number of same-size parts being considered in terms of the whole

Numerator → $\frac{3}{4}$ ← Part
Denominator → 4 ← Whole

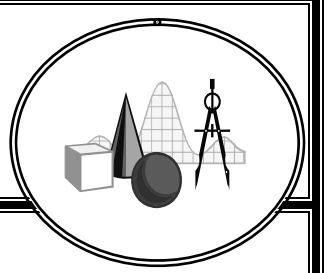


three out of four equal parts are shaded

three out of four dogs are spotted

Associated terms: denominator

ordered pair



Definition and illustration (if applicable):

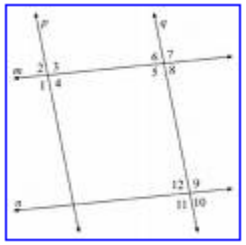
Identifies a location in a coordinate plane
(i. e., (3, 5))
The first number in the ordered pair indicates the distance of the point from the vertical axis. The second number in the ordered pair indicates the distance of the point from the horizontal axis.

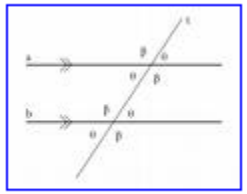
Associated terms:

parallel lines

Definition and illustration (if applicable):

coplanar lines that do not intersect





Associated terms:

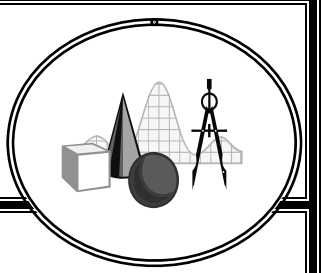
parallelogram

Definition and illustration (if applicable):

a quadrilateral with both pairs of opposite sides parallel

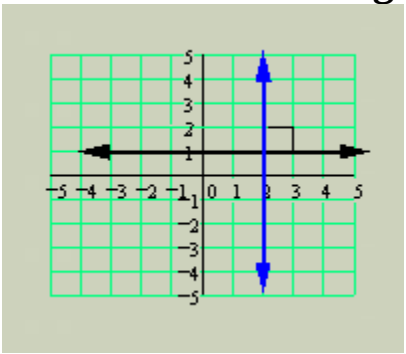
Associated terms: quadrilateral

perpendicular lines



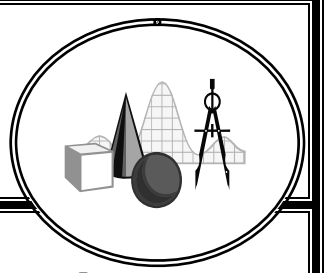
Definition and illustration (if applicable):

lines that intersect to form right angles



Associated terms:

place value



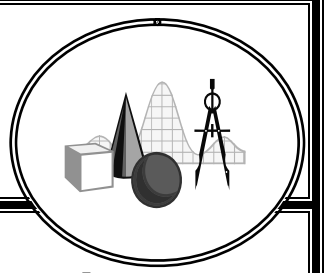
Definition and illustration (if applicable):

the value a digit represents depending on its place in the number (tenth, hundredth, thousandth)

4	2	7	.	8	2	5
Hundreds	Tens	Ones	Decimal	Tenths	Hundredth	Thousandth

Associated terms:

plane

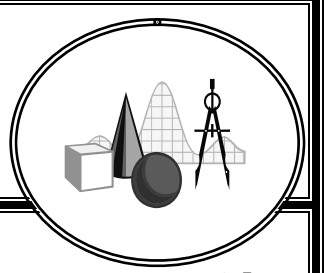


Definition and illustration (if applicable):

described as a flat surface that extends infinitely in all directions; has two dimensions

Associated terms: point, line

polygon

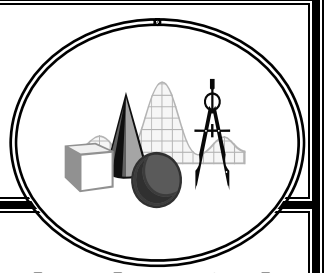


Definition and illustration (if applicable):

a two-dimensional, simple, closed geometric figure that has line segments as sides

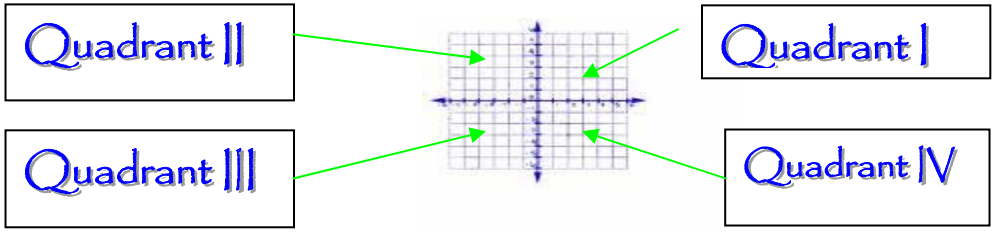
Associated terms:

quadrant



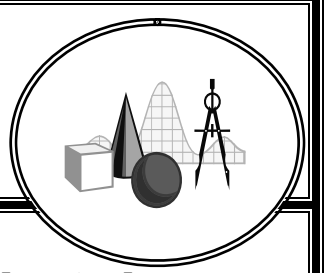
Definition and illustration (if applicable):

one of four portions into which a plane is divided by the horizontal and vertical axes



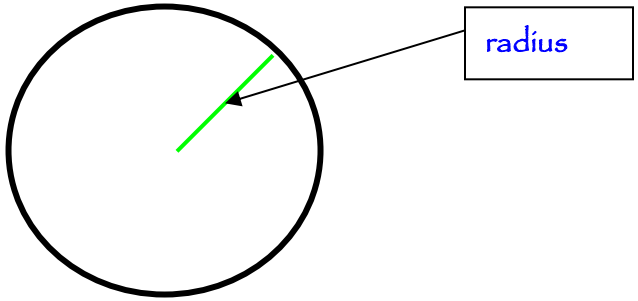
Associated terms: coordinate plane

radius



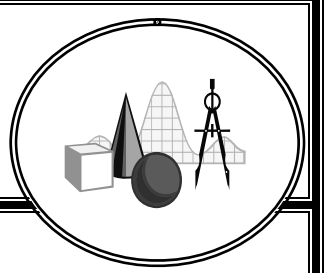
Definition and illustration (if applicable):

a line segment from the center of a circle to any point on the circle



Associated terms:

range (of a set of data)

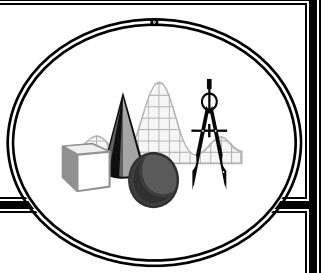


Definition and illustration (if applicable):

a measure of variation; the difference between the greatest and least values in a data set

Associated terms:

rational number



Definition and illustration (if applicable):

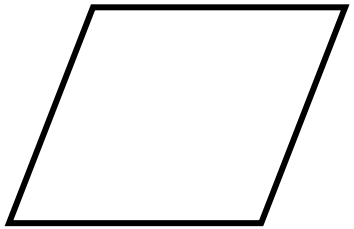
any number that can be written as a ratio (fraction, decimal)

Associated terms:

rhombus

Definition and illustration (if applicable):

a parallelogram with all sides congruent



Associated terms: parallelogram

trapezoid

Definition and illustration (if applicable):

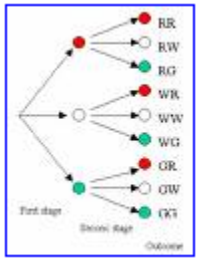
a quadrilateral with exactly one pair of parallel sides

Associated terms: quadrilateral

tree diagram

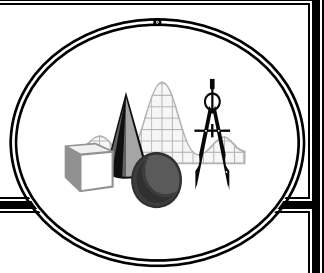
Definition and illustration (if applicable):

a organized list of all possible outcomes for an event



Associated terms: probability

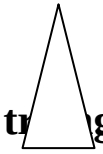
triangle



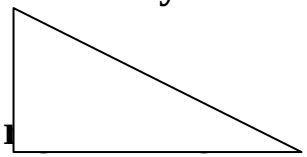
Definition and illustration (if applicable):

a polygon with three sides

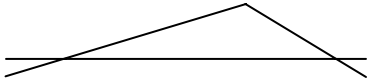
Triangles can be classified by their angle types. An acute triangle has 3 acute angles. A right triangle has exactly one right angle. An obtuse triangle has exactly one obtuse angle.



acute triangle



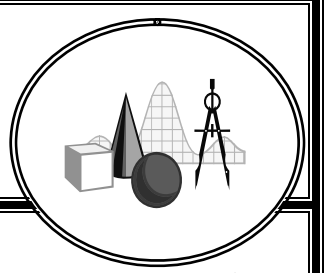
right triangle



obtuse triangle

Associated terms: polygon, quadrilateral

U. S. Customary measurement system

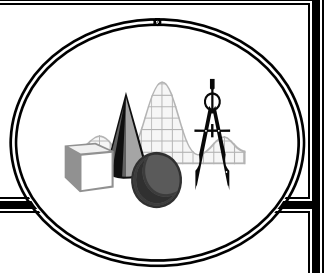


Definition and illustration (if applicable):

the system of measurement commonly used in the United States; common units are inches, feet, yards, and miles-length; ounces, pounds, and tons-weight; ounces, cups, pints, quarts, and gallons-capacity

Associated terms:

variable



Definition and illustration (if applicable):

a symbol that represents an unknown quantity

Associated terms: