Vocabulary

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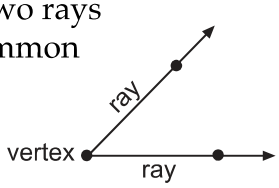
Use the vocabulary words and definitions below as a reference for this unit.

angle (∠) ..... the shape made by two rays extending from a common endpoint, the vertex; measures of angles are described in degrees (°)



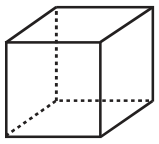
congruent (≅) ..... figures or objects that are the same shape and the same size

coordinate grid or system ..... network of evenly spaced, parallel horizontal and vertical lines especially designed for locating points, displaying data, or drawing maps

coordinate plane ..... the plane containing the x- and y-axes

coordinates ..... numbers that correspond to points on a graph in the form (x, y)

cube ..... a rectangular prism that has six square faces



data ..... information in the form of numbers gathered for statistical purposes

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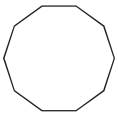
data display ..... different ways of displaying data in tables, charts, or graphs
Example: pictographs; circle graphs; single, double, or triple bar and line graphs; histograms; stem-and-leaf plots; and scatterplots

decagon ..... a polygon with 10 sides

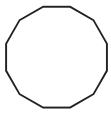


degree (°) ..... common unit used in measuring angles

dependent events ..... two events in which the first affects the outcome of the second event

difference ..... the result of a subtraction
Example: In 16 – 9 = 7,
7 is the difference.

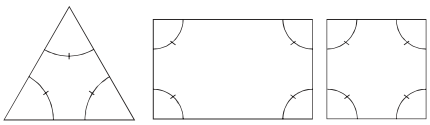
dodecagon ..... a polygon with 12 sides



equally likely ..... two or more possible outcomes of a given situation that have the same probability

equation ..... a mathematical sentence that equates one expression to another expression
Example: $2x = 10$

equiangular polygon ..... a polygon with all angles equal



even number ..... any whole number divisible by 2
Example: 2, 4, 6, 8, 10, 12 …

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event ..... a possible result or outcome in probability

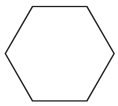
factor ..... a number or expression that divides exactly another number
Example: 1, 2, 4, 5, 10, and 20 are factors of 20.

graph ..... a drawing used to represent data
Example: bar graphs, double bar graphs, circle graphs, and line graphs

graph of an equation ..... all points whose coordinates are solutions of an equation

heptagon ..... a polygon with seven sides

hexagon ..... a polygon with six sides

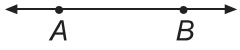


independent events ..... two events in which the outcome of the first event does *not* affect the outcome of the second event

inequality ..... a sentence that states one expression is greater than ($>$), greater than or equal to ($\geq$), less than ($<$), less than or equal to ($\leq$), or not equal to ($\neq$) another expression
Example: $a \neq 5$ or $x < 7$

infinite ..... having no boundaries or limits

line ($\overleftrightarrow{AB}$) ..... a straight line that is endless in length



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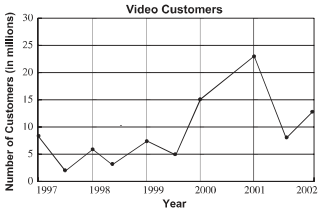
linear equation ..... an equation whose graph in a coordinate plane is a straight line; an algebraic equation in which the variable quantity or quantities are in the first power only and the graph is a straight line
Example: $20 = 2(w + 4) + 2w$; $y = 3x + 4$

line graph ..... a graph used to show change over time in which line segments are used to indicate amount and direction



line of best fit (on a scatterplot) ..... line drawn as near as possible to the various points so as to best represent the trend being graphed; also called a *trend line*

mean (or average) ..... the arithmetic average of a set of numbers

measure (m) of an angle (∠) ..... the number of degrees (°) of an angle

measures of central tendency ..... the mean, median, and mode of a set of data

median ..... the middle point of a set of ordered numbers where half of the numbers are above the median and half are below it

mode ..... the score or data point found most often in a set of numbers

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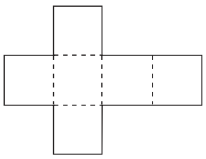
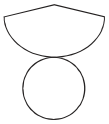
multiples ..... the numbers that result from multiplying a given number by the set of whole numbers
Example: The multiples of 15 are 0, 15, 30, 45, 60, 75, etc.

net ..... a plan which can be used to make a model of a solid; a two-dimensional shape that can be folded into a three-dimensional figure



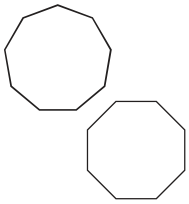
net of a cube



net of cone

nonagon ..... a polygon with nine sides

octagon ..... a polygon with eight sides



odd number ..... any whole number *not* divisible by 2
Example: 1, 3, 5, 7, 9, 11 …

ordered pair ..... the location of a single point on a rectangular coordinate system where the digits represent the position relative to the x-axis and y-axis
Example: (x, y) or (3, 4)

outcome ..... a possible result of a probability experiment

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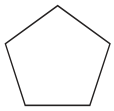
pattern (relationship) ..... a predictable or prescribed sequence of numbers, objects, etc.; also called a *relation* or *relationship*; may be described or presented using manipulatives, tables, graphics (pictures or drawings), or algebraic rules (functions)
Example: 2, 5, 8, 11 … is a pattern. Each number in this sequence is three more than the preceding number. Any number in this sequence can be described by the algebraic rule, $3n - 1$, by using the set of counting numbers for n.

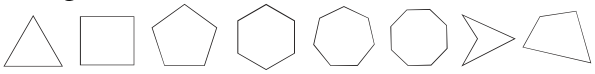
pentagon ..... a polygon with five sides



plane ..... an undefined, two-dimensional (no depth) geometric surface that has no boundaries specified; a flat surface

point ..... a location in space that has no length or width

polygon ..... a closed plane figure whose sides are straight lines and do not cross
Example: triangle (3 sides), quadrilateral (4 sides), pentagon (5 sides), hexagon (6 sides), heptagon (7 sides), octagon (8 sides); concave, convex



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prime number ..... any whole number with only two factors, 1 and itself
Example: 2, 3, 5, 7, 11, etc.

probability ..... the ratio of the number of favorable outcomes to the total number of outcomes

quadrilateral ..... polygon with four sides
Example: square, parallelogram, trapezoid, rectangle, rhombus, concave quadrilateral, convex quadrilateral

range (of a set of numbers) ..... the difference between the highest (H) and the lowest value (L) in a set of data; sometimes calculated as H – L + 1

ratio ..... the quotient of two numbers used to compare two quantities
Example: The ratio of 3 to 4 is $\frac{3}{4}$.

scatterplot (or scattergram) ..... a graph of data points, usually from an experiment, that is used to observe the relationship between two variables

sequence ..... an ordered list with either a constant difference (arithmetic) or a constant ratio (geometric)

set ..... a collection of distinct objects or numbers

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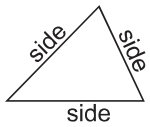
side ..... the edge of a two-dimensional geometric figure
Example: A triangle has three sides.



simplest form ..... a fraction whose numerator and denominator have no common factor greater than 1
Example: The simplest form of $\frac{3}{6}$ is $\frac{1}{2}$.

slope ..... the steepness of a line, defined by the ratio of the change in y to the change in x

solution ..... any value for a variable that makes an equation or inequality a true statement
Example: In $y = 8 + 9$
$y = 17$ 17 is the solution.

substitute ..... to replace a variable with a numeral
Example: $8(a) + 3$
$8(5) + 3$

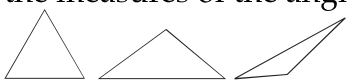
sum ..... the result of an addition
Example: In $6 + 8 = 14$,
14 is the sum.

table (or chart) ..... an orderly display of numerical information in rows and columns

tree diagram ..... a diagram in which all the possible outcomes of a given event are displayed

Vocabulary

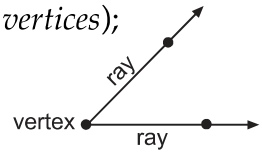
triangle ..... a polygon with three sides; the sum of the measures of the angles is 180°



value (of a variable) ..... any of the numbers represented by the variable

variable ..... any symbol that could represent a number

vertex ..... the common endpoint from which two rays begin or the point where two lines intersect; the point on a triangle or pyramid opposite to and farthest from the base; (plural: *vertices*); vertices are named clockwise or counterclockwise



whole number ..... any number in the set {0, 1, 2, 3, 4, …}

***x*-axis** ..... the horizontal (↔) axis on a coordinate plane

***y*-axis** ..... the vertical (↕) axis on a coordinate plane