	Vocabulary	Definition	6th	7th	8th	Algebra
Α	absolute value	The distance a number is from zero on the number line	х	х	х	х
	absolute value function	A function written as $f(x)= x $, in which $f(x)\geq 0$ for all values of x				х
	acute angle	An angle with a measure between 0° and 90°		х	х	
	Addition Property of Equality	If you add the same number to each side of an equation, the two sides remain equal.	Х	х	х	х
	Addition Property of Inequality	If you add the same number to each side of an inequality, the inequality remains true.	х	х	х	х
	Additive Identity	For any number a the additive identity is zero. $a+0=0+a=a$				х
	Additive Inverse	Two integers, x and –x, whose sum is zero (These integers are sometimes referred to as opposites.)		x	х	x
	adjacent	Next to		х	х	
	adjacent angles	Angles that share a common vertex, a common side, and do not overlap		х	х	
	algebra	A branch of mathematics that substitutes letters for numbers (An algebraic equation can be thought of as a scale, where what is done on one side of the scale with a number is also done to the other side of the scale.)	x	x	х	х
	algebraic expression	An expression consisting of one or more numbers and variables along with one or more arithmetic operations	х	х	х	x
	algorithm	A step-by-step problem-solving procedure for solving computational mathematical problems	х	х	х	х
	alternate exterior angles	When parallel lines are cut by a transversal, alternate interior angles are two congruent angles found on the outside of the parallel lines and on opposite sides of the transversal.			x	
	alternate interior angles	When parallel lines are cut by a transversal, alternate interior angles are two congruent angles found on the inside of the parallel lines and on opposite sides of the transversal.			x	
	altitude	The height of a polygon and/or polyhedron		х	х	
	angle	Angles are formed by two rays that begin at the same point, called a vertex.	х	х	х	
	angle of rotation	The angle that the image is turned after a rotation	L		х	
	area	The space measured in square units that any two-dimensional shape occupies (The "inside")	х	х	х	х
	arithmetic sequence	A numerical pattern that increases or decreases at a constant rate or value (The difference between successive terms of the sequence is constant.)				x
	Associative Property	The sum or product of three or more numbers is the same regardless of the grouping. (a+b)+c=a+(b+c) and $(ab)c=a(bc)$ Note that the order of the variables is the same.	х	х	х	x
	asymptote	A line that a graph approaches			х	х
	average	A way to show the central tendency of data (There are three types of averages in mathematics - the mean, the median and the mode.)	х	x	х	
	axis	<i>plural: axes</i> ; The vertical or horizontal lines that make up the quadrants of a coordinate plane. The vertical axis is the y-axis and the horizontal axis is the x-axis.	х	х	х	х
	axis of symmetry	The vertical line containing the vertex of a parabola				х
B	bar graph	A graphic form using bars to make comparisons of statistics	х	х		х
	bar notation	In repeating decimals, the line or bar placed over the digits that repeat	х	х		
	base (exponent)	In an expression of the form x^n , the base is x.	х	х	х	х
	base (geometry)	The base is the edge in a polygon perpendicular to the height. The bases of a prism are two congruent parallel faces.	х	х	х	х

Page 1 of 17

Vocabulary	Definition	6th	7th	8th	Algebra
base angle	An angle formed by the base and another edge in an isosceles triangle or trapezoid			х	
best-fit-line	The line that most closely approximates the data in a scatter plot			x	x
bias	An error that results in a misrepresentation of members of a population	х	х	x	х
biased sample	A sample drawn in such a way that one or more parts of a population are favored over others	х	х	х	х
binomial	An expression with two terms		х	х	х
bivariate data	Data with two variables			х	х
boundary	A line or curve that separates the coordinate plane into two regions				х
box and whiskers plot	A diagram that divides a set of data into four parts using the median and quartiles (A box is drawn around the quartile values and whiskers extend from each quartile to the extreme data points.)	X	x		x
center of a circle	The given point from which all points on a circle are the same distance		х	х	х
center of rotation	The point about which a rotation is turned			х	
central tendencies	Numbers or pieces of data that can represent the whole set of data (Mean, median, and mode are measures of central tendencies.)	х	х	х	x
circle	All points in a plane that are a fixed distance from a point called the center		х	х	х
circle graph	A type of statistical graph used to compare parts of the whole	х	х		х
circumference	The complete distance around a circle		х	х	x
closed	A set is closed under an operation if for any numbers in the set, the result of the operation is also in the set.				х
closed half-plane	The solution of a linear inequality that includes the boundary line				х
cluster	A group of data that occurs close together			х	
coefficient	The number multiplied by a variable in a term	х	х	х	х
combine like terms	To add or subtract like terms to simplify an expression or equation	х	х	х	х
commission	The amount of money that an individual receives based on the sale of something		х		
common denominator	A shared multiple of the denominators of two or more fractions	х	х	х	х
common difference	The difference between the terms in an arithmetic sequence				х
common factor	A factor of two or more numbers (This is a number that will divide evenly into different numbers.)	x	х	х	x
common fraction	A fraction where both the numerator and the denominator are integers		х		
common ratio	The ratio of successive terms of a geometric sequence				х
Commutative Property	The sum or product of two or more numbers is the same regardless of order. $a+b = b+a$ and $ab=ba$	х	х	х	х
complement	One of two parts of a whole		х	х	х
complementary angles	Two angles with the sum of 90°		х	x	
completing the square	To add a constant term to a binomial of the form x^2+bx so that the resulting trinomial is a perfect square				x
complex fraction	A fraction that has one or more fractions in the numerator or denominator		х	x	x

С

Vocabulary	Definition	6th	7th	8th	Algebra
composite number	A number that has more than two factors	х	Х		
compound event	Two or more single events		х		х
compound inequality	Two or more inequalities that are connected by the words "and" or "or"				х
compound interest	A special application of exponential growth	[x
concurrent lines	Two lines that occupy the same space (These can also be said to coincide.)	х	х	x	
cone	A three dimensional shape with only one vertex, having a circular base	х		x	1
congruence	Two figures that have the same shape and size (These figures can be created through of series of				
	rigid transformations.)	X	X	X	X
congruent	Figures that have the same size and shape	х	Х	х	х
consecutive integers	Integers in counting order	х	х	х	х
constant	A value that does not change (It is a number in an expression without a variable.)	х	х	х	х
constant function	A function that can be graphed with a line or a smooth curve		х		
constant of proportionality	The constant value k in equations of the forms $y=kx$ and $k = y/x$		Х		
constant of variation	The number k in equations of the form y=kx				x
constant rate of change	The rate of change between any two points in a linear relationship is the same, or constant.			х	х
construction	The drawing of geometric items	х	х		
continuous data	Data that can take on any value (There is no space between data values for a given domain.			v	
	Graphs are represented by solid lines.)	L		л	
continuous function	A function that can be graphed with a line or a smooth curve				х
convenience sample	A sample that includes members of a population that are easily accessed	х	х	х	х
convert	To change from one unit of measure to another	х	х	х	х
coordinate plane	A system of graphing on a rectangular grid using two perpendicular axes as references	х	х	х	х
coordinates	The ordered pair (x,y) that states the location on a coordinate plane; used to describe an exact position	х	х	х	х
correlation coefficient	A value that shows how close data points are to a line				x
corresponding angles	Angles that are in the same position on two parallel lines in relation to a transversal			х	
corresponding parts	The matching sides, angles and vertices of congruent figures such as polygons or angles	х		х	
counterexample	A specific case in which a statement is false			х	х
cross product	Used to solve a proportion: In $a/b=c/d$, $ad = bc$. Also referred to as cross-multiply	х	х	х	х
cube	A rectangular prism with six square faces	х	х	х	
cube root	If $a^3=b$, then a is the cube root of b.	х	х	х	x
cubic function	Polynomial function of degree three				x
cubic units	Units used for measuring volume	х	х	x	
cylinder	A three dimensional shape with two congruent, parallel, circular bases which are joined by a	х	x	x	
doto	curved surface	┢─────			+
uata		X	Х	X	X
decreasing function	I he graph of a function goes down on a portion of its domain when viewed from left to right	i	1	Х	Х

Vocabulary	Definition	6th	7th	8th	Algebra
deductive reasoning	The process of using facts, rules, definitions, or properties to reach a valid conclusion				х
defining a variable	Choosing a variable to represent an unknown and writing its verbal description	х	х	х	х
degree	The unit of measure in an angle, shown by the degree symbol: $^{\circ}$		х	х	
degree of a monomial	The sum of the exponents of all of its variables				х
degree of a polynomial	The greatest degree of any term in the polynomial				х
denominator	The denominator is the bottom number of a fraction. The denominator is the total number of parts, or the whole.	х	x	х	x
dependent events	Two or more events in which the outcome of one event affects the outcome of the other events		x		
dependent variable	The variable in a relation with a value that depends on the value of the independent variable	х	х	х	х
diameter	A chord that passes through the center of a circle (Also the length of a line that cuts the circle in half)		x	х	х
difference	The difference is what is found when one number is subtracted from another.	х	х	х	х
difference of two squares	Two perfect squares separated by a subtraction sign				х
dilation	A transformation that alters the size of figure but not its shape			х	Х
dimensional analysis	The process of carrying units throughout a computation				Х
direct variation	As the value of one number changes so does the value of a related number (An equation of the form $y=kx$, where $k\neq 0$)		х	х	х
discount	The amount by which a regular price is reduced	х	х		
discrete data	Data with space between possible data values (Graphs are represented as dots.)			х	
discrete function	A function of points that are not connected				х
discriminant	In the Quadratic Formula, the expression under the radical sign, $b^2 - 4ac$				х
distance formula	The distance d between any two points with coordinates (x_1, y_1) and (x_2, y_2) is given by a formula. That formula can be located in the textbook.				x
distribution (expressions and equations)	To multiply every term inside the parenthesis by the outside term to simplify an expression or equation using the Distributive Property	х	X	х	х
distribution (statistics)	A way to show the arrangement of data values	х	х	х	х
Distributive Property	For all real numbers a, b, and c, $a(b + c)=ab + ac$.	х	х	х	х
divisible	This describes a number that can be evenly divided by another number.	х	х	х	
Division Property of Equality	If you divide each side of an equality by the same nonzero number, the two sides remain equal.	х	х	х	х
Division Property of Inequality	When you divide each side of an inequality by a negative number, the inequality symbol must be reversed for the inequality to remain true.		х		х
domain	A set of objects from which the solution can be taken or the set of x-coordinates in a relation			х	х
dot plot	A number line with marks or dots that shows frequencies	х	х		х
edge	A line segment that joins vertices in a polygon or the line where two faces meet in a three dimensional solid	x	x	x	
elimination	A method of solving a system of equations that uses addition to get rid of one of the variables so that you can solve for the remaining variable			x	х

Vocabulary	Definition	6th	7th	8th	Algebra
end behavior	Describes how the values of a function behave at each end of the graph				х
end point	The 'point' at which a portion of a line or a curve ends or begins			х	
equally likely	Outcomes that have the same chance of occurring		х	х	X
equation	A statement showing the equality of two expressions, or a number sentence with an equal sign	х	х	х	х
equiangular	A polygon in which all angles are congruent			x	
equilateral	A figure where all sides are equal	х		x	
equilateral triangle	A triangle with three congruent sides	х			
equivalent	Denoting two quantities that have the same value	х	х	х	х
equivalent equations	Equations that have the same solution			х	х
equivalent expressions	Expressions that have the same value regardless of the values of the variables	х	х	x	
equivalent fractions	Two or more fractions that represent the same amount	х	х	x	
estimate	A technique used to approximate a value	х	х	x	
evaluate	To calculate the numerical value	х	х	x	
even number	An integer that can be divided or is divisible by two	х	х	x	
event	A collection of one or more outcomes		х		
expand	To write a math term or statement as a sum or product of values	х		х	
expected value	The weighted average of all outcomes				х
experiment	Investigation or a procedure that has varying results		х		х
experimental probability	An estimated probability based on the relative frequency of positive outcomes occurring during		х		
exponent	The number that gives reference to the repeated multiplication required (The exponent of 3^4 is 4.)	x	x	x	x
exponential decay	When an initial amount decreases by the same percent over a given period of time				х
exponential function	A nonlinear function in which the base is a constant and the exponent is an independent variable			х	x
exponential growth	When an initial amount increases by the same percent over a given period of time				x
expression	A math statement that uses numbers and symbols (There is no equal sign.)	х	х	х	x
exterior angle of a triangle	An angle between one side of a triangle and the extension of an adjacent side			х	
exterior angles	The four outer angles formed by two lines cut by a traversal			х	
face	The face refers to the shape that is bounded by the edges on a three dimensional object.	х	х	x	x
factor	A number that will divide into another number exactly (The factors of 10 are 1, 2 and 5.)	х	х	х	х
factorial	The expression n!, read n factorial, where n is greater than zero, is the product of all positive integers beginning with n and counting bedward to one				x
factoring	The process of breaking numbers down into factors	Y	v	v	v
factoring by grouping	The use of the distributive property to factor some polynomials having four or more terms	Α	A	Λ	x x
fair	All possible outcomes in a situation have an equal chance of occurring.		x		
family of graphs	Graphs and equations of graphs that have at least one characteristic in common				x

Vocabulary	Definition	6th	7th	8th	Algebra
favorable outcomes	Outcomes of a specific event		х		
finite	Not infinite (Finite has an end.)			х	х
five point summary	The five points needed to construct a box-and-whiskers plot: the two extremes, the upper and lower quartiles and the median				x
flip	A reflection of a two dimensional shape (a mirror image of a shape)			x	
formal proof	A two-column proof containing statements and reasons	1		x	x
formula	An equation that states the rule describing the relationship of two or more variables	x	x	x	x
fraction	A number that represents part of a whole or part of a group	x	x	x	x
frequency	The number of times an event happens	x	x	x	x
frequency table	An organized collection of data showing the number of times something happens per interval	x	x	x	x
function	A relation in which each element of a domain is paired with exactly one element of the range			x	x
function notation	A way to name a function that is defined by an equation (In function notation, the equation $y=3x-8$ is written as $f(x) = 3x - 8$.)			x	x
function rule	The equation of a line (It gives the relationship between the domain and the range.)	х		x	х
function table	A table organizing the domain, rule, and range of a function	х		х	х
Fundamental Counting Principle	Uses multiplication of the number of ways each event in an experiment can occur to find the number of possible outcomes in a sample space		х		
general equation for exponential decay	$y = C(1 - r)^t$, where y is the final amount, C is the initial amount, r is the rate of decay expressed as a decimal, and t is time				х
general equation for exponential growth	$y = C(1 + r)^t$, where y is the final amount, C is the initial amount, r is the rate of growth expressed as a decimal, and t is time				х
generalization	A general statement made by taking specific results and applying them to a larger group of objects		x		
geometric sequence	A sequence in which each term after the first is found by multiplying the previous term by a constant r, called the common ratio				х
graph	1. A display of data (noun) 2. To draw or plot the points named by certain numbers or ordered pairs on a number line or coordinate plane (verb)	х	х	х	х
gratuity	Also known as a tip (Money given in appreciation for a service provided)	<u> </u>	х		
greatest common factor (GCF)	The largest number common to each set of factors that divides both numbers exactly (e.g., the greatest common factor of 10 and 20 is 10.)	х	x	x	x
grouping symbols	Parentheses (), brackets [], and the fraction bar are all grouping symbols	х	х	х	х
half-plane	The region of the graph of an inequality on one side of a boundary	1			х
height	1. In two dimensions: the distance between the base and the opposite vertex or another base 2. In three dimensions: also known as the altitude	х	х	х	х
hemisphere	Half of a sphere			х	
hexagon	A polygon having six sides	х			
histogram	A graphical display that uses bars to display numerical data that have been organized into equal intervals	х	х		х
horizontal axis	The x-axis in a coordinate plane	х	х	х	х

Н

Ι

Vocabulary	Definition	6th	7th	8th	Algebra
horizontal line	A line parallel to the x-axis	х	Х	х	X
hypotenuse	The longest side of a right triangle (Always the side that is opposite of the right angle)			х	х
identity (equation)	An equation that is true for every value for the variable				X
identity function	The function $y = x$				х
identity property of addition	The sum of the addend and zero is the addend.	х	х	х	х
identity property of multiplication	The product of a factor and one is the factor.	х	х	х	х
image	The resulting figure after any transformation			х	
improper fraction	A fraction in which the numerator is greater than or equal to the denominator (For example 6/4)	х	х		
in terms of pi	Representing an answer as a product of a number and pi		х	х	
increasing function	The graph of a function goes up on a portion of its domain when viewed from left to right			х	x
independent events	Two or more events in which the outcome of one event does not affect the outcome of the other events		х		x
independent variable	The variable in a function with a value that is subject to choice	х	х	х	х
inductive reasoning	A conclusion based on a pattern of examples				х
inequality	An open sentence that contains any of the symbols: <, <, >, >, >, or \neq	х	х	х	х
inference	A conclusion about a population that is drawn from the statistics gathered from a sample of the population		x		
infinite	Limitless or unending	х	х	х	х
informal proof	A paragraph proof			х	х
input	This refers to the domain or the x-coordinates.	х	х	х	х
integer	Whole numbers, positive or negative, including zero; represented by the set {,-2,-1,0,1,2,}	х	x	х	x
intercept	The point where a function crosses the x- or y- axes			х	х
interest	Money paid or earned for the use of money	х	х		
interest rate	A rate which is charged for the use of money	х	х		
interior angles of a triangle	The three angles of a triangle		х	х	
interior angles	The four inside angles formed by two lines cut by a transversal			х	
interquartile range	The range of the middle half of a set of data (It is the difference between the upper quartile and the lower quartile) This can be represented by IQR.	x	x		x
intersecting lines	Two lines with only one point in common			х	х
intersection	The graph of a compound inequality containing "and" where the solution is the set of elements common to both inequalities			х	х
inverse operation	An operation that "undoes" another operation	х	х	x	x
inverse variation	An equation of the form $xy = k$, where $k \neq 0$				x
irrational number	A number that cannot be represented as the ratio of two integers (A number like pi is irrational because it contains an infinite number of digits that do not repeat or terminate. Many square roots are irrational numbers.)	x	x	х	x

Page 7 of 17

	Vocabulary	Definition	6th	7th	8th	Algebra
	isoceles triangle	A triangle having at least two congruent sides	х			
	isometry	It is a transformation that does not change size.			х	
K	key	A key is used to identify items present in a graph or drawing.	Х	х	х	х
L	lateral faces	The faces surrounding the base in a prism or pyramid			х	
	leading coefficient	The coefficient of the term with the highest degree in a polynomial			х	х
	least common denominator (LCD)	It is the least common multiple of the denominators of two or more fractions. A LCD is needed when adding or subtracting fractions.	х	х	х	х
	least common multiple (LCM)	The smallest number that is a common multiple of two or more numbers	х	х	х	х
	legs	The sides of a right triangle that form the right angle			х	х
	like fractions	Fractions having the same denominator (Numerator is the top, denominator is the bottom)	х	х	х	х
	like terms	Terms with the same variable(s) with the same exponents	х	х	х	х
	line	A straight infinite path joining an infinite number of points (Any line can be determined by two points.)	х	х	х	x
	line graph	A type of statistical graph used to show change over time	х	х	х	х
	line of best fit	A line that describes the trend of the data in a scatter plot			х	х
	line of reflection	The line over which an image is reflected	Х		х	х
	line of symmetry	A line that divides a figure or shape into two parts (The two parts must be congruent to one another.)			х	x
	line plot	A number line with marks or dots that shows frequencies	Х			
	linear equation	An equation whereby letters represent real numbers and whose graph is a line (A linear equation can be written in the form y=mx+b.)		х	х	х
	linear expression	An algebraic expression in which the exponent of the variable is one		х	х	х
	linear function	A function with ordered pairs that satisfy a linear equation			х	х
	linear regression	An algorithm to find a precise line of fit for a set of data				х
	linear transformation	One or more operations performed on a set of data that can be written as a linear function				х
	linear units	Unit of measurement of length	Х	х	х	х
	literal equation	A formula or equation with several variables			х	х
	lower extreme	The least number in a set of data	х	х		х
	lower quartile	The median of the lower half of a set of data, represented by LQ	х	х		х
	lowest terms	A fraction is in lowest terms when the only common factor of the numerator and the denominator is one.	x	х	х	x
Μ	mapping	A representation of the relationship of the elements in the domain to the elements in the range			х	x
	mark-up	Increase from what the store pays to the selling price		х		
	maximum	1. The most 2. The maximum of a parabola is the vertex when the parabola opens down.		х	х	x
	mean	The mean is the same as the average. Add up the series of numbers and divide the sum by the number of values	x	х	х	x

Vocabulary	Definition	6th	7th	8th	Algebra
mean absolute deviation	The average of the absolute values of differences between the mean and each value in a data set	v	v		v
	(It is used to predict errors and to judge equality.)	л	А		А
measures of central tendency	Numbers or pieces of data that can represent the whole set of data	х	х	х	Х
measures of variation	Numbers used to describe the distribution or spread of a set of data	х	х	х	х
median	The median is the 'middle number' in a list or series of numbers. When there is an even number of	v	v	v	v
	data, the median is the mean of the middle two numbers.		л	л	А
minimum	1. The least 2. The minimum of a parabola is the vertex when the parabola opens up.	х	х	х	х
mixed number	A mixed number is a whole number with a fractional part. (For example $3\frac{1}{2}$)	х	х	х	
mode	The mode is the most frequently seen piece of data.	х	х	х	Х
monomial	An algebraic expression consisting of a single term		х	х	х
multiple	A multiple of a number is the product of the number and any other whole number. (2,4,6,8 are multiples of 2)	x	х	x	
multiplicative identity	For any number a, the multiplicative identity is one. $a \cdot 1 = 1 \cdot a = a$				х
multiplicative inverse	Two numbers with a product of one (sometimes referred to as the reciprocal)	х	х	х	х
Multiplicative Property of Equality	If you multiply each side of an equation by the same number, the two sides remain equal.	х	х	х	х
Multiplicative Property of Inequality	When you multiply each side of an inequality by a negative number, the inequality symbol must be reversed for the inequality to remain true.		X		x
natural number	The set of numbers, $\{1, 2, 3,\}$ These can also be called the counting numbers.	х	х	х	х
negation	A negation of a simple statement can usually be formed by placing the word "not" into the original statement. The negation will always have the opposite truth value of the original statement. <i>The negation of "rolling a 3 on a die" is "not rolling a 3 on a die"</i> .		x		
negative	A function is negative on a portion of its domain where its graph lies below the x axis.	х	х	х	x
negative correlation	A relationship between two variables where one increases and the other decreases			x	х
negative exponent	For any real number where $a \neq 0$ and any integer n, the following is true: $a^{-n} = 1/a^n$ and $1/a^{-n} = a^n$.			x	x
negative number	Any number less than zero	х	х	x	x
negative slope	The slope of a line that appears to be going down as you move from left to right			х	x
net	A two-dimensional representation of a three-dimensional figure	x	x	x	
no solution	1. An equation that has no solution 2. A system of parallel lines where these is no point of intersection (No point makes both equations true.) 3. A parabloa has no solutions when the parabola does not intersect the x-axis.			x	x
nonlinear function	A function with a graph that is not a straight line (There is not a constant rate of change.)			х	х
n th root	The n th root of a number is the value needed to multiply by itself "n" times in order to get that number. For example, the 4th root of 81 is 3 because 3 x 3 x 3 x 3 equals 81.			x	x
number line	A line on which all points correspond to numbers	х	х	х	х
numerator	The top number in a fraction $(In \frac{1}{2})$, one is the numerator and two is the denominator.) The numerator is the portion of the denominator.	х	х	x	x
numerical	Relating to numbers	х		х	

Vocabulary	Definition	6th	7th	8th	Algebra
oblique	Slanted			х	Х
obtuse angle	An angle having a measure greater than 90° and less than 180°	х	х	х	
octagon	A polygon having eight sides	х			
odd number	An integer that is not divisible by two	х	х	х	
one to one correspondence	A relationship where every element in one set is paired with one and only one element of another set			х	x
open half plane	The solution of a linear inequality that does not include the boundary line (This is represented with a dashed line.)				x
open sentence	A mathematical statement with one or more variables			х	х
operation	Refers to either addition, subtraction, multiplication or division, which are called the four operations in mathematics or arithmetic	х	х	х	x
opposite	Two numbers with the same absolute value, but different signs (The sum of opposite numbers is zero.)	х	х	х	
order of magnitude	The order of magnitude of a quantity is the number rounded to the nearest power of 10.			х	х
order of operations	A set of rules used to solve mathematical problems PEMDAS (<i>Parentheses, Exponents, Multiply/Divide, Add/Subtract</i>) is often the acronym used to remember the order of operations.	х	x	x	x
ordered pair	A set of two numbers or coordinates used to locate any point on a coordinate plane, written in the form (x,y)	Х	x	х	x
orientation	The direction a figure faces on a plane			х	
origin	The point (0,0)	Х	х	х	Х
original figure	The figure before a transformation occurs			х	
outcome	One possible result of a probability event		х		
outlier	Data that are more than 1.5 times the interquartile range beyond the quartiles	х	х	х	х
output	This refers to the range or the y-coordinates.	х	х	х	х
parabola	The graph of a quadractic function; a type of curve shaped like an arch (The path of a projectile that is influenced by gravity)			х	х
paragraph proof	A paragraph that explains why a statement or conjecture is true			х	х
parallel lines	Two lines in the same plane that are equally distant apart and do not intersect (These either have the same slope or are both vertical lines.)	х	х	х	х
parallelogram	A quadrilateral with two pairs of parallel sides	Х	х		
parameter	A measure that describes a characteristic of the population as a whole				х
parent function	The simplest of functions in a family of functions				х
parent graph	The simplest of graphs in a family of graphs				х
percent	A ratio or fraction that compares a number to 100	х	х	х	x
percent equation	An equivalent form of the percent proportion in which the percent is written as a decimal (Part = Percent×Whole)	х	х		
percent error	The percent that an estimated quantity differs from the actual amount		х		
percent of change	A ratio that compares the change in a quantity to the original amount		х		

Vocabulary	Definition	6th	7th	8th	Algebra
percent of decrease	The percent of change when the new amount is less than the original		х		
percent of increase	The percent of change when the new amount is greater than the original		х		
percent proportion	Compares part of a quantity to the whole quantity using a percent (Percent/100 = Part/Whole)	x	х		
perfect cube	A number whose cube root is an integer			х	х
perfect square	A number whose square root is whole number	х		х	х
perfect square trinomial	A trinomial that is the square of a binomial				х
perimeter	The total distance around the outside of a polygon	х	х	х	х
perpendicular	Lines that intersect to form a right angle	х	х	х	х
pi	The ratio of the circumference of a circle to its diameter (The Greek letter π is used to represent this ratio.)		х	x	х
pictogram	A type of statistical graph using pictures to represent data	х			
piecewise-defined function	A function written using two or more expressions			x	х
piecewise-linear function	A function written using two or more linear expressions			х	х
plane	When a set of points joined together form a flat surface, the plane can extend without end in all directions.	x	х	x	х
point	An exact location in space that has no size which can be represented by the ordered pair (x,y) on a coordinate plane	x	х	x	х
point slope form	An equation of the form, $y - y_1 = m(x - x_1)$ where m is the slope and (x_1, y_1) is a given point on a non-vertical line			x	х
polygon	Line segments joined together to form a closed figure (Rectangles, squares, and pentagons are all examples of polygons.)	х	х	х	
polyhedron	Plural: polyhedra; A three dimensional figure in which all faces are polygons	х	х	х	
polynomial	An algebraic expression with two or more terms	х	х	х	х
population	A large group of data usually represented by a sample	х	х	х	х
positive	A function is positive on a portion of its domain where its graph lies above the x axis.	х	х	х	х
positive correlation	A relationship between two variables where both increase or both decrease			х	х
positive number	Any number greater than zero	х	х	х	х
positive slope	The slope of a line that appears to be rising as you move from left to right			x	х
power	A number produced by raising a base to an exponent	х	х	х	х
prediction	An estimation or reasonable guess as to what will happen		х	х	х
pre-image	The original figure before a transformation			х	
preserve	Keep or maintain			x	
prime factorization	A number written as the product of its prime factors	х			х
prime number	An integer that is greater than one and is only divisible by one and itself (One is not prime.)	х	Х		х
principal	The amount of money invested or borrowed		X		
prism	A polyhedron with two parallel, congruent bases and rectangular lateral faces	х	х	х	

Vocabulary	Definition	6th	7th	8th	Algebra
probability	The chance that some event will happen (It is the ratio of the number of ways a certain event can		v		
	occur to the number of possible outcomes.)		^		
product	The answer in a multiplication problem	х	х	х	х
proof	A logical argument in which each statement that is made is supported by a statement that is			x	x
	accepted as true				
proper traction	A fraction where the numerator is less than the denominator		х		
proportion	An equation of two equivalent ratios (These equations are solved using a cross product.)	Х	Х	X	Х
proportional	Two quantities that form a proportion	Х	х	х	х
pyramid	A polyhedron with a polygon base and triangular sides that all meet at a common vertex	х			
Pythagoream triple	A set of three natrual numbers that satisifies the Pythagorean Theorem				х
Pythagorean Theorem	If a and b are the measures of the legs of a right triangle and c is the hypotenuse, then $a^2 + b^2 = c^2$.			x	x
quadrant	The x and y axes divide the coordinate plane into four regions. Each region is called a quadrant.	х	х	х	х
quadratic equation	An equation in the form of $ax^2 + bx + c = 0$, where $a \neq 0$				х
quadratic expression	An expression in one variable with a degree of two written in the form $ax^2 + bx + c$				х
quadratic formula	The quadratic formula is used to find the solutions of a quadratic equation in the form $ax^2 + bx + b$				
	$c = 0$ where a $\neq 0$. This formula can be found in the textbook.				Х
quadratic function	A function in which the greatest power of a variable is two. When it is graphed, it is a parabola.			v	v
	(Algebra 1: An equation of the form $f(x) = ax^2 + bx + c$, where $a \neq 0$)			л	Λ
quadrilateral	A four sided polygon	х	х	х	
qualitative	Non-numerical data, usually descriptive in nature		х	х	х
quantitative	Numerical data		х	х	х
quantity	The number of items	х	х	х	х
quartile	The values that divide a set of data into four parts	х	х	x	х
quotient	The solution to a division problem	х	х	х	х
radical	A term with a radical sign			х	х
radical equation	Equations that contain radicals with variables in the radicand				x
radical expression	An expression that contains a radical				x
radical function	A function that contains radicals with variables in the radicand				x
radical sign	" $$ " which indicates square root			x	x
radicand	The expression that is under the radical sign			x	x
radius	A line segment from the center of a circle to any point on the circle		x	x	v
random	Outcomes occur at random if each outcome is equally likely to occur.		x	x	x
random sample	A sample that is as likely to be chosen as any other from the population		x	x	x
range (functions)	The set of v-coordinates in a relation, also referred to as output		^	v v	v
range (statistics)	The difference between the greatest and least data values		~	л 	
range (statistics)	The unreferice between the greatest and least data values	х	X	Х	Х

R

Q

Vocabulary	Definition	6th	7th	8th	Algebra
rate	Ratio of two measurements having different units of measure	х	Х	Х	Х
rate of change	How a quantity is changing with respect to a change in another quantity		Х	х	х
ratio	A comparison of two quantities by division (Ratios can be expressed in words, fractions, decimals or percents.)	х	х	х	x
rational equations	Equations that contain rational expressions	х	х	х	х
rational exponents	The n th root of a positive number a can be written as a power with a base a and an exponent of $1/n$. ($a^{1/n}$)				x
rational expression	An algebraic fraction with a numerator and denominator that are polynomials, where the denominator cannot equal zero				x
rational function	An equation of the form $f(x) = p(x)/q(x)$, where $p(x)$ and $q(x)$ are polynomial functions and $q(x) \neq 0$	L			x
rational number	Any number that can be written as a fraction	х	х	х	х
rationalizing the denominator	To eliminate radicals from the denominator of a fraction				х
real number	Rational and irrational numbers form this set of numbers.	х	х	х	х
reciprocal	The multiplicative inverse of a number	х	х	х	х
recursive formula	Each term is formulated from one or more previous terms.				х
reflection	A mirror image of a shape or an object obtained by flipping the shape or object	х		х	х
reflexive property	An equality that states $a = a$				х
regular polygon	A polygon that is equilateral and equiangular	х	х	х	х
relation	A set of ordered pairs			х	х
relative frequency	The number of times an outcome occurred in an event			х	х
remote interior angles of a triangle	The two angles that are not adjacent to a given exterior angle			х	
repeating decimal	A decimal whose digits repeat in groups of one or more	х	Х		
replacement	The process of substituting one thing for another		х		
replacement set	A set of numbers from which replacements for a variable may be chosen			х	х
representative sample	A sample of a population that is unbiased, random, and large enough to represent the entire population		x	х	x
residual	The difference between an observed y-value and its predicted y-value on a regression line				х
rhombus	A parallelogram with all sides congruent	х			
right angle	An angle that is 90°	х	х	х	
right solid	This is a three dimensional figure whose axis is perpendicular to the base.	х	х	х	
rise	The vertical change in a line			х	x
root(s)	The solution(s) of a quadratic equation (This is where a parabola crosses the x-axis.)	·			x
rotation	The transformation commonly referred to as a turn (You need a center of rotation and an angle of rotation.)			х	
rounding a decimal	To change a number to a less accurate number (If the number following the requested the place value is five or more, increase the digit by one. If the number following the requested place value is less than five, leave the number the same.)	x	x	х	x

Vocabulary	Definition	6th	7th	8th	Algebra
run	The horizontal change in a line			x	х
sample	Some portion of a larger group selected to represent that group	х	х	х	х
sample space	The list of all possible outcomes	х	х	х	х
sampling variation	Variation between different samples of the same size taken from the same population	х	х		
savings	Money that is not spent	х	х		
scale	The relationship between the measurements on a drawing or model and the measurements of the real object	х	х	x	
scale drawing	A drawing used to represent an object that is too large or too small to be shown at actual size	х	х		
scale factor	The ratio of the lengths of two corresponding lengths of two similar figures		х	х	
scale model	A model used to represent an object that is too large or too small to be built to actual size		х		
scatter plot	A graph that shows the relationship between a set of data with two variables graphed as ordered pairs on a coordinate plane			х	х
scientific notataion	A number in scientific notataion is expressed as a x 10^n , where $1 \le a < 10$ and n is an integer.			х	х
self-selected sample	Members volunteer to be included in the sample			х	х
sequence	A set of numbers in a specific order				х
set-builder notataion	A concise way of writing a solution set (For example, $\{t \mid t \le 17\}$ represents the set of all numbers such that t is less than 17.)				X
shift	A vertical or horizontal translation of the graph of any function				х
similar figures	Figures with the same shape, but not necessarily the same size. Angles are equal and edges are proportional.	х	х	х	
similarity	When two images have the same shape but different sizes	х	х	х	
simple interest	The amount paid or earned for the use of money (The simple interest formula is $I = prt$, where I is the interest, p is the principal, r is the annual interest rate, and t is the time in years.)	х	х		
simple random sample	A sample that is as likely to be chosen as any other from a population	х	х	х	х
simplest form	1. When a fraction's numerator and denominator only have a GCF of one 2. In algebra, an expression is in simplest form when any distribution has been performed and all like terms have been combined.	х	х	х	х
simplify	To perform all possible operations in an expression	х	х	х	х
simulation	Using a model to act out an event that would be difficult or impractical to perform		х		х
slope	The ratio of the change in the y-coordinates (rise) to the corresponding change in the x- coordinates (run) as you move from one point to another along a line		х	х	х
slope triangle	Similar triangles that can be drawn on the line that when simplified is the slope of the line			x	х
slope-intercept form	An equation of the form y=mx+b, where m is the slope and b in the y-intercept			x	х
solution(s)	The value(s) that make an equation or inequality true	х	х	x	х
solution set	The set of values that makes a statement true	х	х	x	х
solve	The process of finding the solution of an equation or inequality	х	x	x	x
solving an open sentence	Finding the replacement value for the variable that results in a true sentence or an ordered pair that results in a true statement when substituted into the equation				x

Vocabulary	Definition	6th	7th	8th	Algebra
sphere	A three dimensional figure where all points on the surface are equally distanced from the center	х		х	
square	A quadrilateral with four equal (congruent) sides and four right angles	х	х	x	х
square (exponent)	A number raised to the second power	х	х	x	Х
square root	One of the two equal factors of a number (For example, the square root of 144 is 12 since $12^2 = 12(12) = 144$)	х	х	х	x
square root function	A function that contains the square root of a variable				х
square units	The units used when measuring area	х	x	x	х
standard deviation	The square root of the variance				х
standard form	1. The standard form of a linear equation is $Ax+By=C$, where A and B are real numbers, A and B are not both zero, and A, B, and C are integers with a greatest common factor of one. 2. The standard form of a quadratic equation is $ax^2 + bx + c = 0$ where $a \neq 0$.	х		х	x
standard form of a polynomial	A polynomial that is written with the terms in order from the greatest degree to the least degree				x
statistic	A quantity calculated from a sample				Х
statistical inference	The statistics of a sample are used to draw conclusions about the population.				х
statistical question	A question that has many different or variable answers	х			
statistics	The branch of Mathematics that deals with collecting, organizing, displaying and analyzing data	х	х	x	x
stem and leaf plot	A system used to condense a set of data where the greatest place value of the data forms the stem and the next greatest place value forms the leaves	х	х		х
step function	A piece-wise function with a graph that is a series of horizontal line segments (A function that is constant over each interval in its domain.)			x	х
straight angle	An angle that measures 180°		х	х	
stratified sample	A sample in which the population is first divided into similar, non-overlapping groups; a simple random sample is then selected from each group.			x	x
substitution	Replacing a variable with a number or an expression	х	х	х	х
substitution for systems	Use algebraic methods to find an exact solution of a system of equations by solving one of the equations for one of the variables and replacing the results into the other equation and solving for the remaining variable			х	x
Subtraction Property of Equality	If you subtract the same number from each side of an equation, the two sides remain equal.	х	х	х	х
Subtraction Property of Inequality	If you subtract the same number from each side of an inequality, the inequality remains true.	х	х	х	х
sum	The answer in an addition problem	х	х	х	х
supplementary angles	Two angles are supplementary if their sum totals 180°.		х	х	
surface area	The sum of the areas of all the surfaces of a three-dimensional figure	х	х	х	х
survey	A question or set of questions given to a sample of the population designed to collect data	х	х		х
symmetric distribution	A type of distribution in which the right and left sides of its display indicate frequencies that are mirror images of each other				x
Symmetric Property	The equality property that states if $a = b$ then $b = a$.		1		х

Vocabulary	Definition	6th	7th	8th	Algebra
symmetry	A geometric property of figures that can be folded and each half matches the other exactly				х
system of equations	A set of equations with the same variables for which a common solution is sought			х	х
system of inequalities	A set of two or more inequalities with the same variables				х
systematic sample	A sample in which the items in the sample are selected according to a specific time or item interval	x			х
table	A chart that organizes numerical data	х	х	х	х
tax	A fee charged by the government on a product, income, or activity	х	х		
term	A number, a variable, or a product or quotient of numbers and variable(s) (The parts of an expression that are added or subtracted.)	х	х	x	х
terminating decimal	A decimal whose digits end	х	х		
terms of a sequence	The numbers in a sequence				х
three dimensional figure	A figure that cannot be contained in a plane (The dimensions are commonly referred to as length, width and height.)	х	х	x	
tip	Also known as a gratuity (Money given in appreciation for a service provided)	х	х		
total cost	The full price of something with discounts, tip, and taxes included	х	х		
transformation	A change of position or size of a figure (The four basic transformations are translations, reflections, rotations, and dilations.)			x	х
translation	1. A term used in geometry that can be described as a slide (Each point of the figure/shape is moved the same distance in the same direction.) 2. This can also be referred to as a horizontal or a vertical shift.			x	x
tree diagram	A diagram used to show the total number of possible outcomes in a probability experiment		х		х
trinomial	An algebraic expression with three terms	х	х	х	х
two dimensional figure	A shape that has length and width but not height (This figure is contained in a plane.)	х	х	х	
unbiased sample	A sample that is selected at random and is large enough to produce accurate data (This sample is representative of the entire population.)	х	х	x	х
unit	A standard quantity used in measurement (For example, an inch is a unit of length, a centimeter is a unit of length, and a pound is a unit of weight.)	х	х	x	х
unit rate	A rate that has a denominator of one (For example, miles per hour)	х	х		
unlike fractions	Fractions whose denominators are different	х	х		
upper quartile	The median of the upper half of a set of data, represented by UQ	х	х		х
variable	A letter used to represent a number in equations and/or expressions (For example in $3x+y$, both y and x are variables.)	х	х	x	х
verbal model	Using words to represent a mathematical statement to aide in understanding a story problem or situation		х	х	х
vertex (geometry)	plural: vertices; A point of intersection where two or more rays meet, often called the corner	x	X	x	х
vertex (parabola)	The maximum or minimum point of a parabola				х
vertical angles	Opposite equal (congruent) angles formed by intersecting lines		х	Х	

U

V

	Vocabulary	Definition	6th	7th	8th	Algebra
	vertical axis	The y-axis	Х	х	х	х
	vertical line	A line parallel to the y-axis	Х	х	х	х
	visual overlap	A visual representation of data that compares two distributions with their variation, or spread		х		
	volume	The number of cubic units that fills a three dimensional space (A measurement of capacity)	х	х	х	х
W	weighted average	The sum of the product of the number of units and the value per unit divided by the sum of the number of units, represented by M				x
	whole number	The set of all positive integers and zero; the set $\{0, 1, 2,\}$ (A whole number does not contain a fractional part.)	х	х	х	х
	width	The distance of the side perpendicular to the length	Х	х	х	х
X	x-axis	The horizontal axis (number line) in a coordinate plane	х	х	х	х
	x-coordinate	The first number in an ordered pair (It tells the distance to move right or left. It corresponds to a number on the x-axis.)	х	х	х	х
	x-intercept	The value of the x-coordinate of a point where a graph crosses the x-axis			Х	Х
Y	y-axis	The vertical axis (number line) in a coordinate plane	Х	х	х	х
	y-coordinate	The second number of an ordered pair (It corresponds to a number on the y-axis. It tells the distance to move up or down.)	х	х	х	х
	y-intercept	The value of the y-coordinate of a point where a graph crosses the y-axis			Х	х
Z	zero exponent	For any non zero number a, $a^0 = 1$. Any non zero number raised to the zero power is equal to one.			х	x
	zero pair	A pair of numbers whose sum is zero		X	X	
	zero slope	A horizontal line is considered to have a slope of zero. (No rise only run.)			х	х