Department: Math Course: PreCalculus 2016-2017

Term, Phrase, or Expression	Simple Definition	Comprehension Support
Evaluate	To find the numerical value of an expression and express that value in its simplest form	
Simplify	Write an expression using the least possible number of terms	
Linear equation	An equation that represents a line: There are three forms - standard, slope-intercept, and point-slope	
Standard linear equation	Used to find x- and y-intercepts and for recognition of linear equations	Ax + By = C, where A, B, and C are integers and $A \geq 0$
Slope-Intercept linear equation	Used for graphing and to find the y-intercept of a line.	y = mx + b where m is the slope and b is the y-coordinate of the y-intercept
Point-Slope linear equation	Used to create linear equations and for many calculus concepts	y - y1 = m(x - x1) where (x1, y1) is any point on the line and m is the slope
relation	A correspondence between two groups which are called the domain and range	
domain	The first group in a relation - elements of this group correspond to the x-values in an ordered pair (x, y).	
range	The second group in a relation - elements of this group correspond to the y-values in an ordered pair (x, y)	
function	A special type of relation	

	where each element of the domain goes to exactly one element of the range	
Linear function	Function whose graph is a line	f(x) = mx + b
Polynomial function	Function whose terms are all polynomials in one variable	$f(x) = a_n x^n + a_{n-1}x^{n-1} + \ldots + a_2 x^2 + ax + a$
Quadratic function	Polynomial function whose highest degree is 2. The graph is a parabola.	$f(x) = ax^2 + bx + c$
Cubic function	Polynomial function whose highest degree is 3.	$f(x) = ax^3 + bx^2 + cx + d$
Absolute value function	Function whose graph takes on a V-shape	$f(x) = \|x\|$which means $f(x) =$
Natural (counting) numbers	Positive real numbers that do not include any fractions or decimals but represent only whole quantities	{1, 2, 3, 4, 5, …}
Whole numbers	The natural numbers and 0	{0, 1, 2, 3, 4, …}
Integers	Whole numbers and their opposites	{...-3, -2, -1, 0, 1, 2, 3, …}
Rational numbers	Real numbers that can be written as fractions using integers. In decimal form they either terminate or repeat.	Ex: ½, 3, 0.12, ⅓, etc
Irrational numbers	Real numbers that cannot be written as fractions using integers. In decimal form they do NOT terminate nor do they repeat	Ex. square root of 2, pi, 0.10010001000010000001...
Real numbers	All rational and irrational numbers	
The imaginary number	The square root of -1	

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Complex numbers	Numbers in the form of *a* + *bi,* where *a* and *b* are real numbers.	
operations	Actions we perform on numbers and functions like addition, subtraction, multiplication, squaring, composing, etc.	
exponent	The power of a number or variable - tells how many times something is multiplied by itself	
Vertical asymptote	A vertical line where a function does not exist. On the left or right side the function must head off toward infinity or negative infinity	
Horizontal asymptote	A horizontal line the values of a function approach on the far left or right of a graph. It may be crossed, unlike a vertical asymptote.	