Unit 1 Topics

* factoring and fractions review
* domain from an algebraic equation using interval notation
* domain, range, increasing, decreasing, constant, relative/local extrema, absolute extrema, boundedness, continuity,kinds of discontinuities (jump, removable and nonremovable) and end behavior using limit notation
* sketching the library of functions (constant, identity, square, cube, absolute value, square root, and reciprocal) using transformations and combinations of transformations (horizontal, vertical, x-reflection, y-reflection, and vertical stretch)
* graph and evaluate piece wise functions
* adding, subtracting, multiplying, dividing and composing functions; state excluded values; state the domain of a composed function
* inverse functions including their symmetry, algebraic method for creating (include examples where factoring is necessary) and using compositions to determine if two functions are inverses of each other
* definition of one-to-one, the horizontal line test and their application to inverse functions