**ALGEBRA 2 - CHAPTER 10 TEST STUDY TOPICS**

* Identify the difference between an Arithmetic and Geometric Series
* Write the formula for Arithmetic and Geometric Series in 1st term form
* Given an arithmetic series, find the number of terms and find the sum
* Determine if a Geometric Series is Finite or Infinite and if possible find the sum
* Evaluate the sum of a Geometric and or Arithmetic Series in Sigma Notation
* Use the Binomial Theorem and or Pascal’s Triangle to expand a Binomial
* Determine if a situation is a Combination or a Permutation then find the number of possibilities
* Solve an exponential function by changing base or using logs
* Given a 3rd degree polynomial use division to find all the x-intercepts
* Convert Degrees to Radians.
* Be able to locate an angle on the unit circle and give its x and y coordinates in radical form (remember the hand)
* Given a situation of appreciation or depreciation, write the equation to model then calculate a value after time and or a length of time for a given value.
* Recognize the graph of a function and its inverse and determine if the inverse is a function
* Simplify a complex number multiplied by its conjugate
* Multiply and simplify a rational expression. Also add and simplify a rational expression
* Solve a radical expression
* Find the inverse of a function
* Put a given quadratic equation in vertex form
* Simplify an exponential expression

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