**ALGEBRA 2 - CHAPTER 3 TEST STUDY TOPICS**

* Given two terms of a sequence, be able to find the next terms for either an arithmetic or a geometric sequence identifying a common difference or common ratio and write the equation for t(n)
* Determine if a function is odd, even or neither and justify. (Even if reflected across the y-axis; odd if rotated 180 degrees about the origin and the graphs align)
* Given a radius and center of a circle, write the equation for the circle in graphing form (general form: (x-h)² + (y-k)² = r² )
* Rewrite expressions from radical form to a fractional exponent, or from a fractional exponent to radical form and also eliminate any negative exponents.
* Given an appreciation or depreciation problem, write the exponential equation identifying the starting value and multiplier and solve for a dollar amount given a specific amount of time.
* Multiply and or factor given expressions.
* Solve an equation by finding a common denominator and clearing fractions
* Solve an inequality
* Evaluate a function for a given input. Given the output of a function work backwards to find the input. Also evaluate a composite function (Ex: f(g(x))
* Multiply, Divide, Add, Subtract and Simplify Rational expressions (practice factoring!)
* Given a quadratic equation in standard form, be able to write the graphing/vertex form and identify the vertex
* Graph a piecewise function and be able to translate the function.

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