New Material Final

Chapter 7
Simplifying Radical Expressions
Adding Radical Expressions
Multiplying Radical Expressions
Dividing Rational Expressions
    Rationalizing
Complex Numbers
    $a + bi$ form
    adding/subtracting/multiplying & dividing
    rationalizing
Powers of i
Solving equations Containing Radicals
    Only 1 radical
    Two or more plus other terms

Chapter 8
Square Root Property to solve a quadratic
Completing the Square to solve a quadratic
Quadratic Formula to solve a quadratic
Parabolas
    Vertex Form
    3 Ways to find the vertex
        vertex form & 2 sets of formulas
    Maximums & Minimums
    Domains & Ranges
    Increasing & Decreasing
    Y & X-intercepts
    Line of symmetry
Solving Equations Using Quadratic Form
Using Quadratic Equations to Solve Application Problems

Chapter 9
One-to-One Functions
Inverse of a Function
    Finding from Ordered Pairs, Equation & Visually
Exponential & Logarithmic Functions
    Graphs -- Graphing Specific functions & translations
    Domains & Ranges
    Transcendental Functions that are inverses of one another
        $a^x = y$ therefore $\log_a y = x$ **or** $\log_a x = y$ therefore $a^y = x$
    Common Log – base 10 & Natural Log (ln) – base "e"
Values of logs w/ Calculator
    Base Change Formula: $\log_a b = \dfrac{\log b}{\log a}$ **or** $\dfrac{\ln b}{\ln a}$
Properties of Exponential & Log F(n)
 If $a^x = a^y$, then $x = y$ & If $\log_a x = \log_a y$, then $x = y$
 If $a^{\log_a (x)}$, then x & If $\log_a a^x$, then x
Condensing & Expanding Using Product, Quotient & Power Rules for Logs
    $\log_a x + \log_a y = \log_a xy$, $\log_a x - \log_a y = \log_a \frac{x}{y}$, $y \log_a x = \log_a x^y$
Solving Log & Exponential Equations
    Using properties above