**ALGEBRA II FINAL REVIEW SHEET: 1st SEMESTER**

This review sheet is meant to serve as a *guideline* to what we have covered during the first semester. It is not inclusive, meaning there may be problems on the test that were not mentioned on this sheet. Conversely, there may be items on this sheet that will not appear on the final.

The ***best method for reviewing for the final*** is as follows: understand everything on this sheet, look through and rework old tests and quizzes, read through the book, review old homework problems, read though notes, pay attention during review sessions, and come to class with questions. When studying, do not make the mistake of telling yourself that you know the material. Convince yourself by working out problems and testing yourself. **Practice, practice, practice!!!**

**Chapter 1 – Solving Equations and Inequalities** Expressions and Formulas Suggested Review Problems Properties of Real Numbers pgs 47-53, 828-829 Solving Equations Solving Absolute Value Equations Solving Inequalities Solving Compound and Absolute Value Inequalities **Chapter 2 – Linear Relations and Functions**  Relations and Functions Suggested Review Problems Linear Equations pgs 100-107, 830-832 Slope Writing Linear Equations Graphing Inequalities **Chapter 3 – Systems of Equations and Inequalities** Solving Systems of Equations by Graphing Suggested Review Problems Solving Systems of Equations Algebraically pgs 145-151, 832-833 Solving System of Inequalities by Graphing  **Chapter 5 – Polynomials** Monomials Suggested Review Problems Polynomials pgs 276-283, 836-839 Dividing Polynomials Factoring Polynomials Roots of Real Numbers Radical Expressions Rational Exponents Radical Equations and Inequalities Complex Numbers **Chapter 6 – Quadratic Functions and Inequalities**  Graphing Quadratic Functions Suggested Review Problems Solving Quadratic Equations by Graphing pgs 336-343, 839-841 Solving Quadratic Functions by Factoring Completing the Square The Quadratic Formula and The Discriminant Analyzing Graphs of Quadratic Functions

**PROJECT for Monday/Tuesday, January 7th/8th :**

After reviewing the above material, ***write and solve*** 6 final exam quality problems from **EACH** of the above chapters. They can be similar to problems from your book or homework, but not exact copies. Use the “Mathematics Study Guide” paper, 1 for each problem. You should write 30 problems total: 6 from each chapter. If they are of appropriate quality, I MAY consider including these on the actual final exam.

**☺ HAPPY HOLIDAYS!!! ☺**