

Algebra II – Unit 1 – Polynomial, Rational, and Radical Relationships (Pt. 1)

- I. Perform arithmetic operations with complex numbers.
 - a. N.CN.1 Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.
 - b. N.CN.2 Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.
- II. Use complex numbers in polynomial identities and equations.
 - a. N.CN.8 Extend polynomial identities to the complex numbers.
- III. Interpret the structure of expressions.
 - a. A.SSE.1 Interpret expression that represent a quantity in terms of its context.
 - i. Interpret parts of an expression, such as terms, factors, and coefficients.
 - ii. Interpret complicated expressions by viewing one ore more of their parts as a single entity.
 - b. A.SSE.2 Use the structure of an expression to identify way to rewrite it.
- IV. Perform arithmetic operations on polynomials.
 - a. A.APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.
- V. Understand solving equations as the process of reasoning and explain the reasoning.
 - a. A.REI.2 Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

From the book: This unit will consist of mainly CH. 5 in our Algebra II book.

Supplement: No foreseeable supplemental materials will be used.

“I Can” Statements:

- “I can perform operations on complex numbers.”
- “I can perform operations on polynomials.”
- “I can solve problems involving complex numbers.”
- “I can identify different parts of an expression/equation and rewrite them.”
- “I can solve radical equations.”

Time Line: Because this is our first time teaching Common Core, I am not exactly sure how long this unit will take. However, I am estimating 4 weeks. (Sep. 10-Oct. 5)