## **Algebra II Essential Skills and Concepts**



# I Can...

#### **Creating Equations**

• create and use an appropriate regression model.

#### **Interpreting Functions**

- graph absolute value functions using transformations.
- write and graph piecewise functions.
- graph simple quadratic functions using transformations.
- describe the characteristics of the graph of polynomial.
  - End behavior, domain and range, intervals of increase and decrease, relative maximum and minimum, zeros, and degree
- graph radical functions using transformations.
- identify the key characteristics of a quadratic equation.
- graph simple quadratic equations using transformations.

### **Reasoning With Equations and Inequalities**

- solve a quadratic equation by factoring.
- solve a quadratic equation by completing the square.
- solve a quadratic equation using the Quadratic Formula.

#### **Complex Number System**

• perform operation with complex numbers.

### Arithmetic with Polynomials and Rational Expressions

- solve polynomial equations using factoring methods and relate to an equation and graph.
- solve polynomial equations using the rational root theorem and relate to an equation and graph.
- use and apply the Remainder Theorem.
- use and apply the binomial theorem.
- multiply and divide radical expressions.
- add and subtract radical expressions.
- simplify expressions with rational exponents.