Essential Standards - what students WILL know by passing Integrated 3

- Solve a quadratic using factoring, completing square, and quadratic formula methods. (**CH1)**
- Write the equation of a parabola given a situation. (**CH2)**
- Transform parents graphs (shift, stretch cubics, hyperbolas, square root, linear func. etc) **(CH2)**
- Solve a wide range of equations and systems of equations including equations that have an extraneous solution. **(CH3)**
- Interpret standard deviation. (**CH4)**
- Know how to use the normal probability density function. **(CH4)**
- Write the equations of inverses for simple functions by "undoing." **(CH5)**

- Use logarithms to solve equations, including exponential equations and using the properties of logarithms. (**CH7)**
- Calculate missing side lengths and areas of non-right triangles (except for the ambiguous case). **(CH7)**
- Determine if a polynomial has real roots, double roots, and/or imaginary roots. **(CH8)**
- Factor a polynomial of at least degree 3 (using division) and know the relationship between the roots and the factors of a polynomial. **(CH8)**
- Know how the unit circle is built and what the different parts represent.**(CH9)**
- Be able to convert between Radians and degrees. **(CH9)**
- Understand the relationship between the graph of sine and cosine to the unit circle. **(CH9)**
- Be able to $\times$, $\div$,+,and - simple rational expressions **(CH11)**