## Algebra 2 Semester 1 Test Topics

- Add, subtract, multiply, divide and powers with i
- Is the equation a polynomial? If so, what kind?
- List end behaviors, leading coefficients and degrees of equations
- Sketch polynomials based off key features
- List key features of a polynomial based on a graph
- Find key features of a quadratic word problem
- Solve polynomial word problems (boxes)
- Divide using long division, tabular, and synthetic
- Write the equation of a polynomial given the roots
- Find all solutions/roots of a polynomials
- Add, subtract, multiply, divide and solve rational expressions and equations using restrictions
- Solve radical equations
- Solve equations using log and natural log properties
- Solve exponential equations using same bases or logs and natural logs
- Solve applications using exponential growth and decay and investments

