Algebra 3

Quarter 1 Standards

1. **Alg3.M.A.APR.B.02:** I will be able to apply the Remainder Theorem to determine any zeros of a polynomial function.
2. **Alg3.M.A.APR.B.03:** I can identify the zeros of a polynomial and use the zeros to construct a rough graph of the function.
3. **Alg3.M.A.APR.C.05:** I will be able to expand a binomial using Binomial expansion, Pascal's triangle, and combinatorial methods.
4. **Alg3.M.A.CED.A.01 Quadratics:** I can create equations and inequalities in one variable and use them to solve problems (quadratics).
5. **Alg3.M.A.CED.A.01 Radical:** I can create equations and inequalities in one variable and use them to solve problems (radicals).
6. **Alg3.M.F.IF.C.07a:** I can graph linear and quadratics functions.
7. **Alg3.M.F.IF.C.07b:** I can graph square roots, cube roots, and piecewise-defined functions, including step functions and absolute value functions.
8. **Alg3.M.F.IF.C.07c:** I can graph polynomial functions showing intercepts, maximums and minimums, and end behavior.
9. **Alg3.M.F.IF.C.08a:** I will be able to factor and complete the square in a quadratic function to show zeros, extreme values, and symmetry of the graph.
10. **Alg3.M.N.CN.A.02:** I can add, subtract, and multiply complex numbers.
11. **Alg3.M.N.CN.A.03:** I can find the conjugate of a complex number and use the conjugate to find a quotient of a complex number.
12. **Alg3.M.N.RN.A.02:** I can rewrite radical expressions to expressions using rational exponent.

Quarter 2 Standards

1. **Alg3.M.A.APR.D.07:** I can simplify rational expressions.
2. **Alg3.M.A.APR.D.06**: I can rewrite rational expressions in different forms.
3. **Alg3.M.A.CED.A.01 Rational**: I can create equations and inequalities in one variable and use them to solve problems (rational).
4. **Alg3.M.F.IF.C.07d**: I can graph rational functions using zeroes, asymptotes, and end behavior.
5. **Alg3.M.F.IF.C.07e (Exponential & Logs)**: I can graph exponential and logarithmic functions showing intercepts, maximums and minimums, and end behavior.
6. **Alg3.M.F.LE.A.04**: I can solve exponential functions by estimating graphically and calculating algebraically.

Quarter 3 Standards

1. **Alg3.M.A.REI.C.07**: I will be able to find the solution(s) of a system of equations.
2. **Alg3.M.A.REI.C.08**: I can write a system of linear equations as a single matrix equation.
3. **Alg3.M.A.REI.C.09**: I can find the inverse of a matrix and use it to solve a system of linear equations.
4. **Alg3.M.F.BF.A.01c**: I can write exponential and logarithmic functions that describe a relationships between two quantities.
5. **Alg3.M.F.BF.B.04a:** I can find and write inverse functions.
6. **Alg3.M.F.BF.B.04c**: I can find and write inverse values from a table or graph.
7. **Alg3.M.F.BF.B.05**: I will be able to understand the relationship between exponents and logarithms and use this relationship to solve problems.
8. **Alg3.M.N.VM.C.08**: I can add, subtract and multiply matrices.

Quarter 4 Standards

1. **Alg3.M.F.IF.C.07e (Trigonometric)**: I can graph trigonometric functions.
2. **Alg3.M.F.TF.A.01**: I understand that radian measure of an angle is the length of the arc on the unit circle encompassed by the angle.
3. **Alg3.M.F.TF.A.02**: I can use the unit circle to evaluate trigonometric functions of real numbers and interpret radian measures of angles around the unit circle.
4. **Alg3.M.F.TF.A.03**: I can use special triangles to determine the values of sine, cosine, and tangent for ?/3, ?/4, and ?/6.
5. **Alg3.M.G.SRT.C.06**: I can understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric.
6. **Alg3.M.G.SRT.C.08**: I can use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.