

Algebra 2 Standards

1. Real numbers and properties
 - order of operations
2. Equations and inequalities
 - literal equations and formulas
 - conjunctions and disjunctions
 - compound sentences with inequalities
 - absolute value equations and inequalities
3. Linear equations and inequalities
 - relations
 - graphing equations
 - functions
 - slope
 - parallel
 - perpendicular
 - equations of a line
 - direct variation
 - inverse functions
4. Systems
 - systems of equations
 - systems of inequalities
 - determinants
 - Cramer's rule
5. Radicals and irrational numbers
 - power functions
 - roots and radicals
 - rational and irrational numbers
 - operations with radicals
 - complex numbers
6. Polynomial functions and rational expressions
 - solving quadratic and higher order polynomial equations
 - discriminant
 - polynomial functions and their graphs
 - fractional equations
 - quadratic inequalities and their graphs
 - remainder and factor theorems
 - The Fundamental Theorem of Algebra
 - rational functions
7. Exponents and Logarithms
 - rational exponents
 - real exponents
 - exponential functions
 - logarithmic functions
 - properties of logarithms

8. Conics

- circles
- parabolas
- ellipses
- hyperbolas
- graphing and solving quadratic systems
- inverse variation

End of standards for January and February

9. Sequences and Series

- arithmetic and geometric sequences
- arithmetic and geometric series
- infinite geometric series

10. Permutations, combinations and probability

- fundamental counting principle
- linear and circular permutations
- counting subsets
- combinations and products
- mutually exclusive and independent events
- binomial expansion
- binomial theorem
- Pascal's triangle

11. Matrices

- basic properties
- operations
- linear systems