

Semester 1 Final Concepts to know

1. Factoring (Relationship between a factor and a zero or a root)
2. Imaginary numbers (Includes complex numbers – graphing, adding, subtracting, multiplying, and dividing)
3. Discriminant
4. Translations / transformations
5. Characteristics of a graph (end behavior, increasing/decreasing, positive/negative)
6. Inverse functions (how to find and properties of)
7. Absolute Value (graphs and solving equations and inequalities)
8. Circles
9. Graphing polynomials
10. Remainder Theorem, Factor Theorem, and Rational Root Theorem
11. Binomial Theorem
12. Radicals (simplifying to simplest radical form)
13. Quadratics (Solving, factoring, putting in vertex form, finding the vertex, axis of symmetry)
14. Rational Functions (asymptotes, intercepts, discontinuities, domain)
15. Factorials
16. Long Division (Synthetic Division)
17. Composite of a function ($f(g(x))$)
18. Finding polynomial given zeros (being able to writing factors from zero's and multiplying out)
19. Systems of Equations
20. Piecewise Functions