

Support for College Algebra – Math 0999  
Content Outline, Assignments, and Links

I. Preliminary Concepts/Review

A.) Equations

- 1.2 #1 - #48 M3 & #50, #51, #52, #53 (Redwoods)
- [Algebra's Power Tools Handout](#)
- [Essential Formulas of Algebra](#)
- [The Formal Rules of Algebra](#)
- <https://sites.google.com/site/harlandclub/Home/math/algebra/lineqn>

B.) Completing the Square and Circles

- 10.2 #1 - #33 M3 (Sequoias)
- <https://sites.google.com/site/harlandclub/Home/math/algebra/quadeqn>
- 12.1 #1 - #42 M3 (Sequoias)
- Distance:  
<https://sites.google.com/site/harlandclub/Home/math/algebra/distance>
- Mid-Point:  
<https://sites.google.com/site/harlandclub/Home/math/algebra/midpoint>
- 12.3 #1 - #24 M3 (Sequoias)
- Circles:  
<https://sites.google.com/site/harlandclub/Home/math/algebra/eqncircle>

C.) Logic, Sets, and Notation

- 1.3 #1 - #54 M3 (Redwoods)

D.) Compound Inequalities

- 1.4 #1 - #60 M3 (Redwoods)
- <https://sites.google.com/site/harlandclub/Home/math/algebra/ineq>

E.) Absolute Value Equations & Inequalities

- R3 #1 - #60 M3 (Sequoias)

- <https://sites.google.com/site/harlandclub/Home/math/algebra/absvalue>

F.) Polynomials: Operations & Solving

- **R4 #1 - #84M3 (Sequoias)**
- *Simplifying Polynomials* :  
<https://sites.google.com/site/harlandclub/Home/math/algebra/algexpr>
- *Multiplication of Polynomials*:  
<https://sites.google.com/site/harlandclub/Home/math/algebra/multpoly>
- [Factoring Methods #1](#) & [Factoring Methods #2](#)

G.) Rational Expressions & Equations

- **R5 #1 - #63 M3 (Sequoias)**
- [Fraction Fact Sheet](#)
- *Rational Expressions*:  
<https://sites.google.com/site/harlandclub/Home/math/algebra/ratlexpr>
- *Solving Rational Equations*:  
<https://sites.google.com/site/harlandclub/Home/math/algebra/solveratleqn>
- *Work Problems*:  
<https://sites.google.com/site/harlandclub/Home/math/algebra/wordIvar/wordprobIvarlinear/work>
- *Motion Problems*:  
<https://sites.google.com/site/harlandclub/Home/math/algebra/wordIvar/wordprobIvarlinear/rtd>

## II. Functions

A.) Introduction to Functions, Relations, Domain & Range

- **2.1 #1 - #81M3 (Redwood)**
- <https://sites.google.com/site/harlandclub/Home/math/algebra/fcn>
- **9.2 #1 - #23 Odd, #29 - #41 Odd (Sequoias)**
- **9.3 #1 - #30 M3 and #43 - #63 M3 Find Domain Only (Sequoias)**

- B.) **Algebra of Functions**
- *9.5 #1 - #69 M3(Sequoias)*
- C.) **Linear Functions**
- *9.1 #1 - #66 M3(Sequoias)*
  - *Linear Equations in one variable:*  
<https://sites.google.com/site/harlandclub/Home/math/algebra/solve>
  - *Lines:*  
<https://sites.google.com/site/harlandclub/Home/math/algebra/graphline>
- D.) **Piecewise Functions**
- *4.1 #1 - #21 M3(Redwoods)*
- E.) **Inverse Functions**
- *9.6 #1 - #63 M3(Sequoias)*
- III. **Polynomial Functions**
- A.) **Graphs and End Behavior**
- *6.1 #1 - #30 M3(Redwoods) note: for #21 - #30 only state the end behavior*
- B.) **Finding Zeros**
- *6.2 #1 - #24 M3 and #35 - #45 Odd (Redwoods)*
- C.) **Long Division**
- *Practice to be given in class*
- D.) **Rational Functions and Asymptotes**
- IV. **Exponential and Logarithmic Functions**
- A.) **Exponential Functions and Equations**
- B.) **Logarithmic Functions and Equations**