

## SUMMARY DISCUSSION CHECKLIST

### Functions Studied in Math 101W

*Experiencing Introductory and Intermediate Algebra Through Functions and Graphs,*  
by Thomasson and Pesut 3<sup>rd</sup> edition, Prentice Hall

### LINEAR FUNCTIONS

#### Students Should Be Able To:

- Identify Linear Equations
- Solve Linear Equations:
  1. Addition Property
  2. Multiplication Property
  3. Combination Of Add. & Mult. Property
- Graph Linear Equations:
  1. Describe The Graph
  2. Graphing Techniques
    - A. Creating Tables
    - B. Using Intercepts
    - C. Using Slope And y Intercept
  3. Describe The Slope
  4. Find The Slope
  5. Find y Intercept
- Identify Domain And Range Of Linear Equations
- Write a linear equation when given:
  - A. The Slope And y Intercept

- B. Two Points
- C. A Point And Slope
- Solve A System Of Linear Equations:
  - 1. Graphing
  - 2. Substitution Method
  - 3. Addition Method
- Identify Linear Inequalities
- Solve Linear Inequalities:
  - 1. Reverse Inequality
  - 2. Inclusion/Exclusion Of Endpoints
- Graphing Linear Inequalities:
  - 1. Shading
  - 2. Solid/Dash(Broken) Line

## QUADRATIC FUNCTIONS

### **Students Should Be Able To:**

- Identify Quadratic Equations
- Solve Quadratic Equations:
  - 1. Square Root Property
  - 2. Factoring
  - 3. Completing The Square
  - 4. Quadratic Formula

- Graph Quadratic Equations:
  1. Describe The Graph
  2. Graphing Techniques
  3. Find  $y$  Intercept
  4. Find The Vertex
  5. Find The Axis Of Symmetry
  6. Vertical Translations
  7. Horizontal Translations
  8. Find  $x$  Intercept
- Identify Domain And Range Of Quadratic Equations
- Identify Quadratic Inequalities
- Solve Quadratic Inequalities

## **CUBIC FUNCTIONS**

### **Students Should Be Able To:**

- Identify Cubic Equations
- Graph Cubic Equations:
  1. Describe The Graph
  2. Graphing Techniques
- Identify Domain And Range Of Cubic Equations

## ABSOLUTE VALUE FUNCTIONS

### Students Should Be Able To:

- Identify Absolute Value Equations
- Solve Absolute Value Equations
- Graph Absolute Value Equation:
  1. Describe The Graph
  2. Graphing Techniques
- Identify Domain And Range Of Absolute Value Equations

## RATIONAL FUNCTIONS

### Students Should Be Able To:

- Identify Rational Equations
- Identify Domain And Range Of Rational Equations
- Solve Rational Equations
- Graph Rational Equations
  1. Describe The Graph
  2. Graphing Techniques

## RADICAL FUNCTIONS

### Students Should Be Able To:

- Identify Radical Equations
- Solve Radical Equations
- Graph Radical Equations

- Identify Domain And Range Of Radical Equations Graph Absolute Value Equation

### **EXPONENTIAL FUNCTIONS**

#### **Students Should Be Able To:**

- Identify Exponential Equations
- Graph Exponential Equations
- Identify Domain And Range Of Exponential Equations

### **LOGARITHMIC FUNCTIONS/EQUATIONS**

#### **Students Should Be Able To:**

- Identify Common Logarithms
- Use calculator to evaluate common logarithms
- Identify Natural Logarithms
- Use calculator to evaluate natural logarithms